

Published every Saturday by the Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa., with editorial and executive offices: 30 Church Street, New York, N. Y., and 105 West Adams Street, Chicago, Ill.

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*The Railway Age* is a member of the Associated Business Papers (A. B. P.) and of the Audit Bureau of Circulations (A. B. C.).

Subscriptions, including 52 regular weekly issues, and special daily editions published from time to time in New York, or in places other than New York, payable in advance and postage free. United States, U. S. possessions and Canada: 1 year, \$6.00; 2 years, \$10.00; foreign countries, not including daily editions: 1 year, \$8.00; 2 years, \$14.00.

Single copies, 25 cents each.

H. E. McCandless, Circulation Manager, 30 Church St., New York, N. Y.

# Railway Age

With which are incorporated the Railway Review, the Railroad Gazette and the Railway Age-Gazette. Name registered U. S. Patent Office.

Vol. 104

March 26, 1938

No. 13

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# **Regulation Should Be Extended— At Least Enough to Offset Its Evils**

We are not in favor of a "planned economy" in general, but we are in favor of a higher degree of planning in the national interest as far as the transportation industry is concerned. "Planning" is not only unnecessary but dangerous for free competitive enterprise. But for natural partial monopolies such as exist in transportation, where a measure of government interference has already been undertaken "in the public interest," it is essential that "planning" go far enough at least to assure that the regulatory measures already undertaken do not do more harm than good.

### **"Planned" Low Rates, Unplanned High Costs**

The railways would, undeniably, not be in their present situation if, without interference by the government, they could control the rates they charge or the wages they pay. Railway rates are "affected with a public interest," and government regulates them. But railway expenses in the long run are the determinant of railway rates. If government authority insists, as it does, on "planning" railway rates at a low level, then it will have to extend its "plan" to include some means of keeping railway expenses down too.

One of the reasons—probably the fundamental reason—why railroad earnings are so disastrously low is the lack of understanding among policy-making authorities as to common objectives. There are many authorities, public and private, whose desires are reflected in the policies under which the railways are operated. Among these authorities are the organized shippers and organized labor, railway managements, Congress and the Administration, the Interstate Commerce Commission and other state and national regulatory bodies and (from a standpoint of their effectiveness, least importantly) railway investors.

### **Means Are As Important as Ends**

There is little agreement among these authorities on either the results each wishes to achieve or the meth-

ods by which they hope to achieve these results. For example, generally speaking, organized railway labor seeks high wages and the organized shippers strive for low rates. But in exercising its policy-making power, does organized railway labor go beyond the mere demand for high wages, and advocate policies which will enable the railways to pay ever higher wages, and still continue in business? Conversely, do the organized shippers go beyond the bald demand for low rates and insist upon policies with regard to transportation which will enable the railways to maintain low rates and still stay in business?

When a man, or a group of men, demand that a certain *result* be achieved, they are pretty short-sighted if they do not at the same time favor *methods* which will make possible the result they demand.

### **Labor and Shippers Would Vote for Prosperity**

Congress and the Administration are interested in votes on election day. Various pressure groups demand this or that special favor—and the temptation to politicians is to grant such favors to the group which appears to have the greatest political power and to be most insistent that its demands be met. On the other hand, if Congress and the Administration could look beyond the immediate demands of conflicting pressure groups and, instead, discover and apply policies with regard to the railroads which would restore a reasonable degree of prosperity to them, they might not have to take sides in the conflict of pressure groups. Instead they could give them all more than any of them are getting now. The policy which gets the most votes immediately is not necessarily the one which wins in the long run. General prosperity will make more votes, and depression will cost more votes, than can be gained or lost by acceding to or denying the demands of any pressure group, however powerful.

The rank and file of railway labor—whatever their leaders may say—want jobs more than they want fancy wages and short hours which force the furloughing of

thousands of workers. Similarly, shippers, despite the outcries of their well-fed attorneys at rate hearings, had rather have railroad service at rates which will enable the railroads to live—than they would to sacrifice economical transportation for the future on the altar of present unremunerative rates. General prosperity, to which the railroad industry must be a contributor, will win far more votes for a political party than will general depression fostered by yielding to immediate demands of particularistic pressure groups which make general prosperity impossible.

In railway managements and in the Interstate Commerce Commission and other regulatory bodies we have authorities with influence on transportation policy with, perhaps, fewer particularistic aims than any of the others. Yet even with the managements and the Interstate Commerce Commission, there is insufficient agreement as to legitimate objectives of railway policy and the means by which such objectives may be obtained. No further proof of the lack of such common ground of understanding is needed than the recent rate case. The I. C. C. goes along at least part of the way with managements as to the desirability for greater railway net income, but it does not see eye to eye with managements at all when it comes to establishing a "ceiling" for railway rates.

#### Some Principles All Should Agree Upon

Now, in a free and unregulated competitive industry there would be no cause for public concern in conflicting desires on the part of owners, managements, employees, customers and government. If owners and managements raised prices too high they would lose business to competitors—and if, as a consequence, they were forced to suspend operations, the public would not suffer, since competitors would give all the services the suspended business gave. But when a railroad is forced to suspend operations, there are always heavy losers among its customers, because rival agencies of transportation cannot provide at such low rates the all-round transport service the railroads afford. It follows, therefore, not in denial of particularistic aims, but in order to achieve them, that all the contending parties—organized labor, shippers, managements, government—should recognize that—

**There is a public interest in maintaining railway rates or in controlling railway expenses (or both) to the extent that a rate of profit may result which will assure the retention of railway service to the maximum possible number of American communities, and jobs to the maximum number of railway employees who perform a necessary and useful public service.**

Similarly in a freely competitive business, the compensation of employees is of no economic concern to customers. If employees in a freely competitive business band together and force wage rates to a fantastic level, and thus drive prices upward unduly, the con-

suming public shifts its patronage to competitors—and the organized employees with over-ambitious demands quickly discover their error. If employees of a competitive business are poorly paid and inefficient, customers will transfer their patronage to a competitor with more dependable employees. But there is no competitive substitute for a large part of railroad service. If railroad costs are driven too high by excessive wage demands, competitive traffic will be driven away from the railroads, but shippers of those commodities for which no effective competition is available have no choice in the long run but to pay rates which will cover wage costs, whether reasonable or not. No particularistic interest thrives for very long unless the source from which it derives its income continues to exist. Hence it follows that particularistic interests in railroad transportation should subordinate their immediate objectives to the recognition that—

**There is a public interest in assuring minimum standards of safety and performance in railway service to the end that a service for which no satisfactory competitive substitute exists be not imperilled by inefficient labor. Conversely, there is a public interest also in prohibiting wages at extortionate levels—on the same grounds that the public interest requires protection from extortion at the hands of any monopoly which provides essential goods or services.**

#### "Supply and Demand" Have to Be Planned for Transportation

In free competition, the achievement of the public interest follows as the result of the normal operation of the unhampered forces of supply and demand. But the supply of transportation service is not secured by the natural working of unhampered economic forces. No railway line in these days can be built without the consent of the regulatory authorities, even though private capital is ready to supply the need—and highways and waterways are constructed only incidentally to meet demand in the technical economic sense (i. e., the willingness of users to pay for them). Rather they are built in accordance with the judgment of political authorities. The economic factor in demand under free competition is the amount that consumers are willing to pay for a commodity or a service rather than do without it. This consideration is rarely if ever given any great weight in the establishment of transportation charges. Thus it is obvious that—

**Supply and demand factors alone as represented by the conflicting parties in the present transportation picture can never, under the present set-up, provide an orderly and economic transportation system for the nation. Such a system, if attainable at all, must come as the result of a deliberate policy.**

The achievement of such a policy must remain a forlorn hope as long as the parties who alone can bring

it about do not even recognize that at least some measure of agreement among them is necessary.

It may be argued that the Interstate Commerce Commission supplies the need for co-operative planning for the transportation industry; that it represents a forum where conflicting interests are resolved and the policy representing the broad public interest emerges. We do not believe, however, that such a contention will endure even a superficial examination. The fact that the railroads are now virtually bankrupt after over a half-century of I. C. C. control should be answer enough to any one who contends that the Commission, under its present powers and personnel, meets the need for intelligent planning for the transportation industry.

#### **"Planning" Rates While Ignoring Costs**

The Commission has succeeded—and has the power to do so—as a planning agency in fewer respects than those in which it has not acted at all. It has kept railway rates down, but it has not been able to keep expenses down. The result is that continued efficient railway service is imperilled by the unattractiveness of railway investment to capital. True planning would require that the planners have something to say about the major items of railway expense and their justification—including wage rates.

The Commission has accomplished little or nothing, and has little power to accomplish anything, to avoid uneconomic competition in transportation. Uneconomic competition between railroads the Commission *does* prevent—in part by the provision that its approval must be obtained before new railway lines are built. Uneconomic competition in transportation today does not, however, arise from the haphazard construction of new railway lines, but from lack of comprehensive public policy in the construction of other transportation arteries, i. e., highways and waterways. There can never be intelligent planning for the transportation industry as long as railway, highway and waterway facilities are constructed regardless of each other.

#### **A National Rate Structure Essential to Prosperity**

Quite apart from bringing railway expenses—and particularly wages and working conditions—under some control in the public interest, and in seeing to it that the public interest is uppermost also in the construction of new highway and waterway facilities, planning for the transportation industry must recognize its responsibility for the maintenance of a rate structure which will preserve territorial division of labor. By this we mean a rate structure that enables Florida and California and the Rio Grande region to specialize in the production of perishables. Which permits Maine and Idaho to grow potatoes for a nation-wide market. Which permits Southern Michigan to concentrate upon making automobiles and Kansas in the production of wheat. If every state in the union tried to raise its

own perishables, to mine its own fuel, to build its own automobiles, we would soon have a standard of living in this country comparable to that of some of the smaller European nations.

Territorial division of labor on a continental scale is the secret of American wealth—and it is a freight rate structure based rather on the value of the service than on the cost of particular traffic movements which makes territorial division of labor possible. The maintenance of such a system of freight rates is of far greater importance to the economic life of the nation than giving every Tom, Dick and Harry the "right" to transport his own goods at savings in "cost" upon a publicly-subsidized highway or waterway. There is little evidence that this tremendously important consideration is receiving anywhere the recognition that it merits. Yet it goes to the very heart of any possible plan for the transportation industry which would give effect to the national interest.

## **Taxes, 4: Property, 1**

When taxes amount to \$4.16 for every dollar of return earned on investment in an industry, the statement that "the power to tax is the power to destroy" becomes a grim reality. That four-to-one ratio of taxes to net earnings is shown in the current railroad income account for January.

Total railroad revenues in that month were \$279,200,000. Operating expenses and rentals paid for equipment and jointly-used facilities amounted to \$243,500,000, leaving a balance of \$35,700,000 for the tax collectors and the properties, combined. Of this sum the tax collectors took \$28,800,000, or 81 per cent, leaving only \$6,900,000 as net railway operating income. For every dollar of net return earned, taxes amounted to \$4.16. Payroll taxes alone, amounting to \$8,300,000, exceeded net railway operating income by 20 per cent.

This situation presents a striking contrast to that which existed a year ago. In January, 1937, railway operating revenues amounted to \$331,700,000. Operating expenses and rentals, combined, amounted to \$264,800,000, leaving a balance of \$66,900,000 for the tax collectors and the properties, combined. Of this sum the tax collectors took \$28,000,000, or 42 per cent, leaving \$38,900,000 as net railway operating income. For every dollar of net return earned, taxes amounted to \$0.72.

From January, 1937, to January, 1938, operating revenues declined 16 per cent; operating expenses declined 8 per cent; and net railway operating income declined 82 per cent. Taxes, however, increased 3 per cent. In other words, in the battle for distribution of net earnings in January, 1938, the tax collectors were installed as heavy favorites over the properties. The tax collectors won. Score: Tax collectors, 4; railroad properties, 1.



Impressive Group of the New Santa Fe Trains at the Chicago Terminal

## Santa Fe Places New Streamline Trains in Service

New equipment will bring total to 151 modern lightweight cars—Seven new Diesels and six steam locomotives installed

THE ATCHISON, TOPEKA & SANTA FE is now placing in service, as announced in the *Railway Age* of February 12, the largest fleet of ultramodern, lightweight, streamline trains in the world. The addition of twelve new streamliners, the first of which went into revenue service February 22, will give the Santa Fe thirteen such trains, seven of them propelled by Diesel-electrics, and bring the company's supply of lightweight steel cars to a total of 151. Not only is the Santa Fe increasing its transcontinental service, but for the first time is turning to lightweight equipment and Diesel-electric power to bring important regional or intermediate points closer together.

High lighting the Santa Fe program are three additional new transcontinental trains which operate on a 39½-hour schedule between Chicago and Los Angeles, Cal.; two new stainless-steel streamliners for fast daylight runs between Chicago and Kansas City, and a new lightweight train between Los Angeles and San Diego,

Cal. All of these trains will be hauled by Diesel-electric locomotives, built by the Electro-Motive Corporation, La Grange, Ill. Two double-unit, 3,600-hp. locomotives will be used in Super Chief service and five single-unit, 1,800-hp. locomotives on the lighter trains, thus bringing Diesel-electric locomotive installations on the Santa Fe, before the summer, to a total of 30,900 hp., 23,400 hp. in road service and 7,500 hp. in switching service.

In addition to the new trains mentioned, the regular daily Chief has been streamlined, but is now being drawn by a series of six powerful new 4-6-4 type steam locomotives, recently delivered by the Baldwin Locomotive Works. These locomotives, one of which is of streamline design, are capable of making from 100 to 110 miles per hour. Previously the Chief has consisted of standard-weight equipment which is being superseded by six complete trains of twelve lightweight cars each.

Heading the list of new transcontinental streamliners,



Rear View of a Group of the New Santa Fe Trains at the Chicago Terminal

placed in operation February 22, is a second luxurious, all-Pullman, Super Chief, which, with the first, enables the Santa Fe to offer Super Chief service between Chicago and Los Angeles semi-weekly instead of once a week. Departure from Chicago is on Tuesdays and Saturdays, and from Los Angeles on Tuesdays and Fridays.

Newest innovations of the Santa Fe program are the two five-car, lightweight, streamline, stainless-steel, all-coach flyers which make two round trips each week between Chicago and Los Angeles, operating on the same schedule as the Super Chief. These trains, known as El Capitan, have a passenger seating capacity, including diner and lounge space, of 251, each. They provide comfort and luxury on an economy basis for chair-car travelers, and by making the distance of 2,227.8 miles between Chicago and the Coast in 39½ hours, are said to be the fastest all-coach trains in the world for that distance.

For the daylight run between Chicago and Kansas City, to be initiated about April 1, the Santa Fe will use two new stainless-steel, streamline, Diesel-electric-propelled trains, operating on a schedule of approximately 7½ hours. Each train will carry seven cars with a total seating capacity, including dining room and lounge space, for 300 passengers. The westbound train will be known as the Kansas Cityan and the eastbound train as the Chicagoan.

The new streamliner which will be placed in service for the short run between Los Angeles and San Diego, about March 15, will consist of five cars. The train will be called the San Diegan, and will make two round trips daily between the two points.

The club-baggage, lounge, diner and chair cars of the Santa Fe's new fleet of streamliners were built by the Edward G. Budd Manufacturing Company, Philadelphia; while the Pullman-owned sleeping cars for the additional Super Chief and new Chief are a product of the Pullman-Standard Car Manufacturing Company.

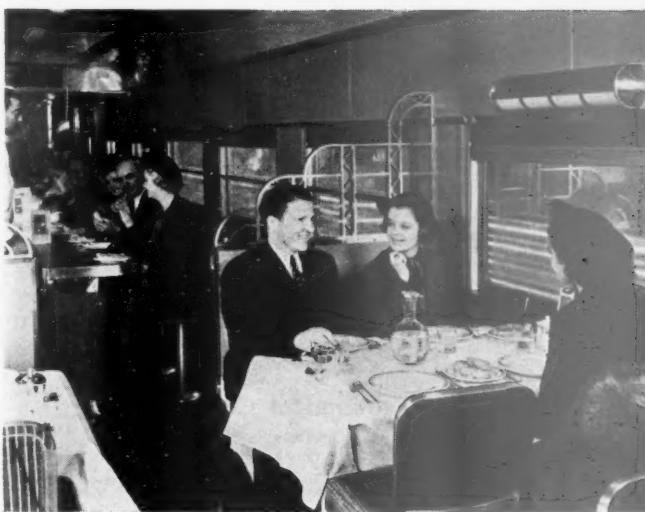
## The De Luxe Coach Train—El Capitan

Each of the two El Capitan trains includes five lightweight, stainless steel cars, with individual sizes, weights and seating capacities as shown in the table. The total length of the train, including the Diesel-electric locomotive, is roughly 474 ft. and it weighs 410 tons, equipped ready for service. The passenger seating capacity is 188 revenue and 63 non-revenue.

The first baggage-dormitory-chair car has a 19-ft. baggage compartment, a 15-ft. section devoted to crew quarters for 12, and a 33-ft. passenger compartment seating 32, also a newsstand and a conductor's desk. The second de luxe chair car has a 9-ft. women's lounge room at the forward end, a 48-ft. center passenger compartment seating 52, and an 8½-ft. men's lounge room at the rear.

In the center of the train is the third car, a lunch counter-diner, with an 18-ft. kitchen, 6-ft. pantry, 29-ft. lunch counter seating 14, and a 19-ft. dining room seating 24. The fourth car is a duplicate of the de luxe chair car already mentioned, with the exception that it is used exclusively for women, and the wash-room in the rear is reserved and equipped as headquarters for a courier nurse who looks after the comfort of women, children and all travelers needing special attention.

The fifth car, and observation-chair car, has a 9-ft. men's lounge in the forward end, and 11½-ft. women's lounge next, and a 49-ft. passenger compartment in the rear, seating 52.



The El Capitan Lunch-Counter-Dining Car

El Capitan is a beautifully equipped train with individual reclining chairs, upholstered in soft sponge rubber, and deeply cushioned seats which slide forward as the backs recline, thus making for comfort. In addition, these chairs revolve to face the broad windows for a view of passing scenery, or completely about to face neighboring passengers. Lounge compartments, as commodious and well equipped as those of a sleeping car, provide plenty of space for smoking or lounging. In the men's lounge, deep divans and roomy chairs are installed. Multiple lavatories, dental lavatory, shelves for shaving kits, etc., are available for the masculine traveler.

Each women's lounge is provided with ample lavatory facilities, large mirrors, a divan, chairs and a dressing table. The color and decorative treatment of the cars has been worked out to include soft, warm tones, varied in each car to avoid monotony. Old rose combined with lake red, buff with tans, olive with grey greens, orchid with composing shades, stainless-steel and chrome trim, are skillfully employed to afford varied interest. The side walls of all cars are finished in wood veneer. Floors are carpeted, with the exception of the chair cars. Rich, deep upholstery covers the chairs and lounge seats.

Throughout each car this same general plan has been followed. In the lounges, lavatories are of soft-colored enamels; wall colors are fresh and inviting; chairs and



One of the De Luxe Chair Cars

lounges are deep, comfortable and rich in color. The chair-observation car in the rear is similar to the two de luxe chair cars, except for the smoothly rounded rear, where built-in lounge chairs and tables have been added. Mountain brown, burnt yellow, burnt orange, shades of green, light sand, beige, and ebony have been combined with stainless steel and chrome for the decorations. In the pier panels figured teak has been used to give a rich natural wood touch.

Wherever stationary seats are required in the ends of all the cars, they are set so that two pairs face, and provision has been made for the installation of tables, for bridge or for writing.

#### Principal Features of Construction

The El Capitan cars are part of a total order of 105 cars, most of which have already been delivered to the Santa Fe by the Edward G. Budd Manufacturing Com-



The Cocktail Lounge in the Club-Lounge Car of the Second Super Chief

pany. The cars are made non-articulated, in the interest of complete interchangeability, and no exterior enclosure sheets, either metal or rubber, are provided between cars. Thirty cars are equipped with Timken roller bearings, eight with S.K.F., five with Hyatt and fourteen with A.S.F. The rest of the cars have friction bearings. Structural details are essentially the same as in the following description of the ten diners which were placed in service last year.

The structure and sheathing are stainless steel fabricated by the Budd Shotweld process with end under-frames made of Cromansil fabricated by the Luken-weld process. The stainless steel structure is made of 18-8 high-tensile strength (150,000 lb. per sq. in.) material and the non-structural parts are made of lower-strength material (100,000 lb. per sq. in.). The roof and sides are insulated with 3 in. of Kapok and the floors with 2 in. of Kimsul and 1 in. of cork. Electric power at 32 volts is supplied by an Exide 850-amp. battery charged by a Safety 7½-k. w. body-mounted generator, driven from a truck axle. The wiring circuits are protected by fuses and are controlled by switches set in labeled panels conveniently placed.

A Safety-Carrier steam-ejector unit supplies conditioned air to the car body. A controllable amount of fresh air from the outside and recirculated air is passed through washable metal filters before passing over the

cooling coils located between the ceiling and the roof, from which it is delivered to the passenger space through an overhead duct. Heavy equipment, such as the ejector, condenser, and so on, are placed below the floor. The water for service and make-up (for air conditioning) is carried in stainless-steel tanks beneath the floor, and delivered under pressure to the outlets in the car. Additional water, carried in overhead tanks and delivered by gravity is for use at such times as the car may be standing without air pressure. Copper fin-tube radiators at the base of the side walls, augmented by overhead heating coils in the air-conditioning unit, furnish heat for the cars. Vapor car heating equipment and thermostatic control are used.

The trucks are the four-wheel, double-equalized type, with integral frames and transoms of cast nickel steel, double annealed and drawn. The frames and brake rigging are designed to function satisfactorily with a 200 per cent braking ratio. The journals are fitted with roller bearings, the equivalent journal size being 5½ in. by 10 in. Four Houdaille shock absorbers on each truck dampen the lateral motion of the truck bolster. Coil springs are silico-manganese steel and the elliptics are chrome-vanadium steel. Simplex unit-cylinder clasp brakes are installed.

The couplers are American Steel Foundries lightweight high-tensile, controlled-slack type with Miner A 4-X-B draft gears. The buffers are Miner B-18-X. The buffer stems and coupler suspension guides are Fabeeka lined.

The dining room has the large windows now being furnished in all the new lightweight Santa Fe equipment. These large windows and the small ones in the aisle around the kitchen are of double-glazed construction with the outer sash ¼-in. plate glass and the inner sash ¼-in. shatterproof glass. The kitchen windows are single-glazed shatterproof, designed as two-part windows with a movable upper unit. The aisle window adjacent to the end of the car is of the lift type, double glazed. All other windows have the outer sash secured in the car body with the inner unit hinged at the top.

The Masonite ceiling arches upward from the side and end walls toward the center where a combination light fixture and air outlet extends the full length of the long arch. This fixture comprises a center soffit on which are placed the lighting fixtures and from behind which the conditioned air is emitted; the soffit is flanked on the sides and ends by a set of three inverted steps. The coloring of these steps varies from an extremely light shade of tan to almost white as the steps approach the center soffit, while the ceiling is another very light shade of tan.

The five overhead light fixtures are trimmed with satin-finished aluminum. These are decorative fixtures with an opal globe projecting down through a series of circular formed rings which serve as deflecting vanes for the conditioned air outlet hidden by the fixtures. The overhead lighting is augmented by side lighting furnished by fixtures placed over each window. These are fitted with four lamps each and with glass in the under surface; the upper portion is made of satin-finished aluminum in the form of four continuous louvers. These fixtures are ornamental during the day, and both decorative and utilitarian during night operation, when subdued blue lights provide just enough illumination for safe passage through the cars. The vanes in the ceiling fixtures and louvers in the side lights present a very pleasing effect when they are lighted.

Five of the cars are finished with Flexwood inside walls and the other five have painted walls. The Flex-



Observation End of One of the Pullman Drawing-Room-Observation Cars

wood is applied to the Masonite side lining. Varnished oriental wood with zebrawood trim is used from the floor to the ceiling line. Aluminum moldings accentuate the break at the intersection of the ceiling and the side and end walls, and carry the top and bottom window lines.

The carpet is a desert sand color with a very small darker brown figure. This is laid on a cushion rubber pad. The drapes and seat upholstery are green and the inside face of the roller shades is tan. The ceiling and side walls of the passageway around the kitchen are painted two light shades of rust.

In the five cars with painted interiors two shades of light rust are substituted for the two kinds of wood used in the other cars, with the addition of a band of another lighter shade of rust above the upper window line which forms a background for ornamentations executed in one of the other shades. The moldings in these cars are finished in the same colors used on the walls. Window drapes and seat upholstery are blue fabric.

## The Second Super Chief, A Notable Train

Outstanding among the new passenger trains just installed by the Santa Fe is the second Super Chief, composed of nine cars finished in stainless-steel, with individual sizes, weights and seating capacities as shown in the table. The train, with its Diesel-electric locomotive, is practically 891 ft. long and weighs about 834 tons. It has a total of 124 revenue seats and 126 diner, lounge and wash-room seats.

The first baggage-dormitory-lounge car has a 19-ft. baggage space, 14½-ft. crew's quarters, a buffet, and a 40-ft. passenger lounge, seating 32. The second car has 17 roomettes with all the privacy of individual rooms. The decorative scheme in this car varies. Some of the rooms are treated in light grey-green ceiling with a deeper shade for the walls, rust colored shades, and settee coverings in a deeper rust mohair. The carpet throughout the car is twist weave of dark rust color. Other rooms in the car are treated in yellow tans, the

ceilings being somewhat lighter than the walls. Window shades are light rust and the settee covering a deeper shade of rust. The passageways and vestibules have ceilings of deep ivory and walls of blue-green.

In the third car, the main body and passageways of the car are treated in three shades of warm tan; the ceiling is almost an ivory shade, the walls an intermediate value, and the base or dado a still darker shade. Window shades are rose and the seat covering is a mauve colored mohair. The carpet is twist weave in two shades of dark green. The two bedrooms are treated in the same color as the body of the car with the exception that the window shades are horizontally striped in brown and beige. Seat covering is light grey-green. The two compartments have ceilings of ivory, with the wall and base color of grey blue-green. The window shades are horizontally striped in beige and blue and the settee covering rose-colored mohair.

The fourth car is composed of two drawing rooms, four compartments and four double bedrooms. Two bedrooms, one drawing room and two compartments have deep ivory ceilings, light blue-green walls and a deeper shade of the same blue-green for the base. The window shades are blue and beige and the settee covering in henna colored mohair. Deep plum-colored pebble-weave carpet covers the entire floor. The other two bedrooms and one drawing room have ceilings in off-white with wainscoting and base two shades of brown-tan. Window shades are beige and brown and the settee cover is grey-green mohair.

The fifth car, a cocktail lounge, contains a barber shop with shower room, a bar, a 33½-ft. lounge and a 23-ft. section with quarters for a crew of 12. The passenger accommodations consist of sofas and chairs with tables conveniently placed to allow greatest comfort. The two tables are arranged for card playing groups, and four tables are placed in front of sofas. Fine veneers are used in this car. The bar front and writing desks are in zebrawood and the walls are treated in



Interior Seating and Lighting Arrangement in One of the Open-Section Pullman Sleepers

black cyprus, a rare and unusual wood. The upholstery fabric is a deep rust for the lounge chairs and pigskin colored leather for the settees and card playing chairs. The window curtains are silver, red and black. A large

#### General Dimensions of New Santa Fe Streamline Trains

Types of cars in the El Capitan	Non-revenue seats		Car length		In-service weight, lb.†
	Revenue seats	Revenue seats	ft.	in.	
Baggage-dormitory-chair	12*	32	79	10	104,900
De luxe chair	9	52	79	10	104,000
Lunch counter-diner	38‡	..	83	2	113,600
De luxe chair	9	52	79	10	104,000
Observation-chair	7	52	80	..	101,300
Total	75	188	402	8	527,800
1,800-hp. Diesel locomotive	..	..	71	3	292,600
Grand total	..	..	473	11	820,400

\* Includes seats and quarters for crew of 12.

† Includes 6000-lb. allowance for water, all supplies, baggage and passengers.

‡ Includes 14 lunch counter seats.

Types of cars in the Second Super-Chief	Non-revenue seats		Car length		In-service weight, lb.†
	Revenue seats	Revenue seats	ft.	in.	
Baggage-dormitory-lounge	36*	..	79	10	104,000
Sleeper; 1 section, 17 roomette	..	18	84	6	133,000
Sleeper; 8 section, 2 bedroom, 2 compartment	6	24	84	6	124,450
Sleeper; 2 drawing room, 4 bed- room, 4 compartment	..	22	84	6	127,400
Club-lounge-dormitory	37‡	..	79	10	102,900
Dining car	36	..	83	2	115,500
Sleeper; 2 drawing room, 4 bed- room, 4 compartment	..	22	84	6	126,800
Sleeper; 8 section, 2 bedroom, 2 compartment	6	24	84	6	124,350
Sleeper; observation; 4 drawing room, 1 bedroom	17	14	84	6	122,200
Total	138	124	749	10	1,080,600
3,600-hp. Diesel locomotive	..	..	141	1	586,800
Grand total	..	..	890	11	1,667,400

\* Includes seats and quarters for crew of 4.

† Includes 6000-lb. allowance for water, all supplies, baggage and passengers.

‡ Includes seats and quarters for crew of 8.

photo-mural showing a view of the Grand Canyon decorates the rear wall. Behind the bar is a stylized etching in the gold mirror of an interesting bit of the southwest country. The furniture is made of square metal tubing with molded-rubber seat cushions.



End View of One of the Pullman Cars Showing Diaphragm Construction. Vestibule Steps Open and Fresh-Air Intake Hatch with Cover Open for Inspection and Cleaning

The sixth car, a diner, is veneered in Bubinga or African rosewood with flesh and sandstone tinted ceiling and end walls, and terra cotta passageways. The carpet is a special design of an Indian pattern in red and black. Continuous lights along the side walls give a pleasing and decorative illumination.

The seventh and eighth cars are sleepers with capacities as indicated in the table and interior arrangements and decorative treatments similar to those in cars already described.

The ninth, or last car, is a room-observation car containing four drawing rooms, one double bedroom, and a 17-seat observation lounge. Two drawing rooms have sand-colored ceilings, and grey-blue walls and base. The window shades are blue with horizontal stripes of beige. Upholstery fabric is henna. One bedroom and two drawing rooms are painted in three shades of tan with brown and beige window shades. The upholstery material is grey-green mohair. The observation room is treated in the style of the Navajo with turquoise-blue ceiling, coral-colored frieze panels and with sand paintings in the pier panels depicting the story of the mountain chant. The upholstery material is specially woven in a design copied from an old Bayets serape. On one wall is a photo-mural showing a Navajo weaver at work at her loom. The floor is covered in a desert-tan colored carpet.

#### Construction of the Pullman Cars

Pullman cars in the second Super Chief are part of a lot of 45 lightweight cars, assigned to special service in Santa Fe streamline trains, being owned and operated by the Pullman Company and built by the Pullman-Standard Car Manufacturing Company. There are 14 open section-bedroom-compartment cars, 6 open-section cars, 7 roomette cars, 12 drawing-room-compartment-bedroom cars and 6 drawing-room-bedroom-observation cars.

The entire structure of each of these cars is composed of high-tensile alloy steel welded together as far as practicable. The cars have load-carrying truss-type side frames, in which the outer corrugated covering of stainless steel acts as a covering only and is not calculated as contributing to the load-carrying capacity of the truss frame. Side panel plates and letterboard panels are  $\frac{1}{4}$ -in. Plymetl, with polished stainless-steel exterior surfaces. The sides are constructed so that under maximum load the sill line is substantially straight with no unsightly sag nor excess camber. The insulating material used is Dry Zero. The oval-type roof is painted aluminum color.

The outside finish of car sides, ends and skirts is natural stainless steel. The flooring is aluminum, with wood stringers, also corrugated aluminum floor sheets with special cork mixture in corrugations. Pullman pivoted steps and trap-door operating arrangement are connected so as to open and close together and are provided with an ice-breaking device. The window sashes are stationary, dehydrated double-glazed window units of a new type being set in flush with the car side in aluminum frames. There are upper-berth windows in cars with open sections and compartments.

Air-conditioning is supplied by the Safety-Carrier steam-ejector system, complete with refrigerating unit Type RBA-636-L and lightweight air-conditioning unit Type A. C. F.-636-L. Pullman-type lower-berth ventilation is furnished in all open sections, with a separate blower system.

The interior side finish is  $\frac{1}{4}$ -in. tempered Preswood and the ceilings are of the same material  $\frac{3}{16}$ -in. thick. Partitions and doors are  $\frac{1}{2}$ -in. plywood, double faced



One of the Triple-Bolster Roller-Bearing Trucks with Frames and Bolsters of High-Tensile Alloy Steel

with aluminum. End doors are 1-in. thick of the same material.

The draft gears are Waughmats, three-mat type; the rubber springs are of adequate capacity to withstand, without damage, a momentary load of 400,000 lb. in buff. Special National tight-lock couplers of high-tensile steel, with yokes cast integral, are installed. The coupler head is designed so that it will accommodate and couple with a special American Steel Foundries controlled-slack coupler on the railroad-owned cars in the train with the Pullman cars.

An air-pressure water-supply system furnishes hot and cold water to each washstand, with a hot-water jacket connected to the steam coil around the hot-water supply tank.

The Vapor system of steam heat, with individual thermostatic control of floor heat in each room, except roomette cars, is installed. Heating pipes are of copper tubing with fin-type radiation. Floor heat in each roomette car is manually controlled.

The air brakes are Westinghouse H. S. C. schedule, lightweight brake equipment, with No. D 22-A control valve and A-4-A relay valve. The trucks are fitted with Simplex unit-cylinder clasp brakes, with two 12-in. by 10-in. aluminum brake cylinders and two slack adjusters per truck. Brakes are arranged for 90 per cent braking ratio with 36-lb. cylinder pressure and 150 per cent emergency braking ratio with 60 lb. cylinder pressure. These cars are designed to be operated with conventional equipment, but provision has been made so that at some future time, brakes can be changed with a minimum expense to the high-capacity brake required for high-speed trains, having up to 250 per cent braking ratio.

#### Four-Wheel Trucks Equipped with Roller Bearings

The trucks are of the triple-bolster, four-wheel type with high-tensile nickel-steel, integral cast truck frames and two brake cylinders mounted on each truck. Twenty-five cars are equipped with American Steel Foundries roller-bearing units and 5½-in. by 10-in. nominal size journals, mounted in high-tensile cast-steel wing-type boxes. Twenty cars are equipped with SKF roller bearings.

#### Electric Power Supply

Electricity is supplied at 32 volts by two sets of Safety 5-kw. equipment, body-hung, complete with generators and lamp regulators of sufficient capacity to handle the lighting and air-conditioning load. Each generator is

driven by a 5-in. 5-ply rubber belt from a pulley mounted on one of the car axles.

The batteries are the Electric Storage Battery Company's Type E. T. A.-35, with rated capacity of 875 amp. hrs. at 32 volts and 1,250 deg. F. electrolyte provided in Monobloc assembly and applied in two steel battery boxes. The wiring is installed to Pullman standard specifications.

A 3-speed, 6-in. circulating fan is applied in each bedroom, compartment, drawing room and roomette, and 7½-in. exhaust fans for the removal of smoke and odors are applied in saloons, general toilets and observation rooms. Features of this lighting include a high degree of individual control in all sections, compartments and rooms and the provision of subdued blue night lights.

Provision is made for the use of electric razors in men's lavatories, general toilets, drawing rooms, bedrooms, compartments and roomettes. Razors operating on 32-volt d. c. may be plugged in directly, and those operating on 110-volt a. c. through vibrating transformers. Observation-car roofs are equipped with aerials for radio reception. A telephone jack at the desk in the observation room may be used as a plug-in connection for outside telephone conversations.

Diaphragms between cars are designed for operation with the existing Pullman cars employing regular Pullman-Standard canvas diaphragms. In the design, provision has been made for later application of the necessary parts to incorporate an outside diaphragm enclosure so that if the railway company later on decides to apply such enclosures for their cars and trains as a whole, outside enclosures may be added at minimum expense.

#### Is This a Typical Employee Opinion?

Personally, I would gladly give back to the company employing me my last raise in wages and take a further reduction if by so doing it would help the railroads and give employment to some unfortunate.

My plea to the railroad managements and labor is that the principles of the Golden Rule be followed in an effort to settle this question.

*From a Letter Signed "Railroader" in the N. Y. Herald-Tribune*

## House Train-Limit Hearing Concluded

WASHINGTON, D. C.

**H**OUSE committee on interstate and foreign commerce hearings on S. 69, the train-limit bill, were concluded on March 18 when labor proponents of the measure, which would limit the length of freight trains to 70 cars, completed their rebuttal presentations. The railroads will make no oral reply to this labor rebuttal, but were given permission to file a statement if they so desire.

In announcing the close of the hearing, which had been under way more or less continuously since January 11, Chairman Lea of the committee said that both sides deserved commendation for the "fairness, diligence and competence" with which their respective cases were submitted. It was one of the "most thorough" hearings that the chairman has ever participated in; and "if there is anything else to be said on either side," Mr. Lea does not know what it could be—"the record states the whole case." The bill, after having been reported by the Senate interstate commerce committee without hearings, was passed by the upper body on July 26, 1937, without a record vote.

Labor's rebuttal which took two hearing sessions was made by John T. Corbett, assistant grand chief engineer and national legislative representative of the Brotherhood of Locomotive Engineers; W. D. Johnson, vice-president and national legislative representative of the Order of Railway Conductors; and J. A. Farquharson, national legislative representative of the Brotherhood of Railroad Trainmen. Each of these in turn read a long prepared statement, while Arthur J. Lovell, vice-president and national legislative representative of the Brotherhood of Locomotive Firemen & Enginemen, made a brief re-statement of his organization's support of the measure.

J. Carter Fort, general solicitor of the Association of American Railroads, opened the sessions with a brief statement designed to "correct the record" with respect to the Railway Labor Executives' Association's attitude toward the bill. Since he had cited that organization's failure to endorse S. 69, Mr. Fort said he had been advised by Chairman George M. Harrison of R. L. E. A.'s recent action endorsing the measure. Mr. Fort also requested the opportunity, which was granted, to file a reply to any new evidence which might come to light in labor's rebuttal. Meanwhile he put into the record a list of some 550 organizations which have gone on record against the bill.

Among Mr. Corbett's opening remarks was his discussion of Railway Labor Executives' Association support, in which connection he asserted that "Mr. Fort and his associates did not demand that there should be some periodical re-endorsement by any of the railroad labor organizations for the support of the provisions of the long-and-short-haul legislation or of any similar piece of legislation." Throughout his reply to railroad testimony Mr. Corbett kept mainly on the "safety-measure" tack, although he did take up the estimate of Dr. Julius H. Parmelee, director of the Bureau of Railway Economics, that the bill, if enacted, would add 30,000 employees. This, Mr. Corbett thinks, is "about three times" what might be expected; but he went on to say that even if Dr. Parmelee be correct, the added cost of employing 30,000 would not exceed \$52,000,000 a year on the basis of 1936.

It was Mr. Corbett's view that the railroads' "determination to use long trains" caused them to lose much

of the "profitable" short-haul business. The carriers, he added, "were asleep at the switch" when the trucks made their big gains. Also, Mr. Corbett, having done his best "to see if there is any relation between the number of trains and grade crossing accidents," has "about decided that, from data available, nothing of the kind may be established."

### Hits Outlay for Improved Facilities

Mr. Johnson's 34-page statement opened with his finding that the railroad presentation in opposition "followed their long-established practice, i.e., the introduction of a large volume of statistical averages and cost figures." Calling attention to "special stress" placed "on the large volume of money that has been paid out for improved transportation facilities since 1923," the speaker went on to say that this outlay "has become more or less a by-word, because the railroads have used it in many ways for several years"—in opposition to labor proposals and in support of long-and-short-haul clause repeal.

For such expenditures, Mr. Johnson believes that the railroads, which have been likened "unto the little boy whose eyes were larger than his stomach," have "no one but themselves to blame." He does not expect the railroads to "acknowledge their mistakes," but he nevertheless thinks they "know full well their greatest mistake was made when they discarded the smaller power a few years ago and purchased the large power now in use. Had they continued the use of the average size locomotive, they could have taken care of the rail transportation needs in a higher degree of safety and efficiency, which would have resulted in saving a very large portion of the more than \$8,000,000,000 in gross capital expenditures since 1923."

After proceeding through his replies to various opposition witnesses, Mr. Johnson reached the conclusion that the bill "is one of real merit. The relief suggested therein is reasonable and fair, based on the fact that human beings, regardless of what has been said to the contrary, are being injured daily under the conditions which we claim should not exist." His clincher was: "Human rights should be placed ahead of property rights."

### Would "Save the Railroads"

In the course of his 27-page statement Mr. Farquharson at one point asserted that enactment of the bill would "save the railroads." It was his view that "unless the railroads of the country begin to give a more frequent service and pay a little more attention to the customer, they will be worse off in a little while than they are today. Then can recover this business and they can hold the business they now have. There is no means of transportation in the world as reliable and dependable as railroad transportation.

"The men I represent earnestly request that this bill be passed. They are the men who are suffering from the slack action on these long trains and if this bill does create all of the added employment that the railroads have talked about, let me say to you that that big industry, in fact the biggest in the United States, will not be doing any more than its duty toward relieving the unemployment situation that exists in the United States today and the sooner big business is ready to take men out of the unemployed ranks in the United States the better off our nation will be because we cannot go on with machinery displacing men and the relief rolls increasing as they are at this time and have been for the past seven years."

# Wheeler Raps Security Group

Evidence introduced at hearing shows security organization opposed present rail finance investigation

WASHINGTON, D. C.

**E**VIDENCE was submitted at the March 22 session of Senator Wheeler's rail finance committee which showed that the Van Sweringen roads and the Pennsylvania had made substantial contributions to the support of the Railroad Security Owners Association and its subsidiary, Research Associates, during the years 1931, 1932, 1933 and 1934. Exhibits were also introduced into the record which showed that Milton W. Harrison, former president of the Railroad Security Owners Association, had written numerous letters, including one to John J. Pelley, president of the Association of American Railroads, conveying the impression that he had "scotched" Senator Wheeler's resolution, S. Res. 71, which set up the present rail finance investigating committee. Mr. Harrison was the principal witness, with Mr. Pelley present to clarify the record when called upon to do so. The efforts of the committee investigators was to show that the Railroad Security Owners Association was largely financed by certain rail carriers to propagandize railroad investors.

At the outset of the hearing, Mr. Harrison admitted that he had organized the Railroad Security Owners Association, but that he was no longer the active head, being merely retained at present in an advisory capacity at a salary of \$15,000 a year. Evidence was introduced to show that during the years 1931 and 1932, Mr. Harrison received a total of \$69,900 for his services to the Association. Senator Wheeler accused Mr. Harrison of running a "propaganda" organization for the railroads. Mr. Harrison retorted that his group was far from being a "propaganda" organization. He then pointed out that during the period from 1917 to 1935, 90 per cent of all the dues of his group came from investors in railroad securities and not from railroads.

## Financing by Van Sweringen Roads

At this point Senator Wheeler charged that Harrison's group was 50 per cent financed by the Van Sweringen roads, including the Chesapeake & Ohio, Pere Marquette, New York, Chicago & St. Louis, Missouri Pacific and Texas & Pacific. A balance sheet of the Railroad Security Owners Association showed the following contributions to that group and its subsidiary, Research Associates: November 24, 1931, \$25,000 from the C. & O. and Pere Marquette; March 2, 1931, \$16,000 from the C. & O. and Pere Marquette; December 12, 1931, \$15,700 from the C. & O. and Pere Marquette; November 31, 1931, \$6,375 from the Nickel Plate; December 14, 1931, \$22,215 from the Missouri Pacific; March 31, 1932, \$7,250 from the Missouri Pacific; December 10, 1931, \$5,250 from the Texas & Pacific; February 25, 1932, \$1,750 from the T. & P.; March 25, 1932, \$3,500 from the Western Pochahantas Corporation; a wholly-owned subsidiary of the Alleghany Corporation, top holding company of the former Van Sweringen "empire"; July 18, 1932, \$7,500 from the C. & O. and the Western Pochahantas Corporation; December 20, 1933, \$15,000 from the Virginia Transportation Corporation, another Van Sweringen holding company;

January 23, 1934, \$10,000 from the Virginia Transportation Corporation; May 20, 1933, \$5,000 from the Pennsylvania; and September 27, 1933, \$15,000 from the Pennsylvania.

## \$50,000 Paid By Pennsylvania

Evidence was also introduced to show that during 1933 and 1934 the Pennsylvania had paid this group \$30,000 more, making a total contribution of \$50,000 for the two years. One item of \$5,000 was shown on a Pennsylvania record as having been paid to the group, but the Railroad Security Owners Association records did not show the item as having been received from the Pennsylvania. A memorandum which was taken from the files of A. J. County, vice-president in charge of finance and corporate relations of the Pennsylvania, showed that the Pennsylvania thought that Mr. Harrison's group was doing a good piece of work and that their activities should be encouraged.

Counsel for the committee also submitted a memorandum taken from Mr. Harrison's files which showed that his organization had strenuously opposed the present rail finance investigation, going so far as to characterize it as a "fishing expedition." The following excerpt is taken from a memorandum of Mr. Harrison's relative to Senate Resolution 71: "Senator Wheeler favors the investigation. Should it pass, it would provide a red herring across the path of any constructive and intelligent railroad legislation in the current session. Furthermore, it would serve to create further public unrest and thus serve to develop sentiment in favor of government ownership."

Two letters were introduced which showed that Mr. Harrison believed that he had "scotched" the rail finance investigation. One from Mr. Harrison to Mr. Pelley read as follows:

Dear John:

Think I have "scotched" Senator Wheeler's proposed resolution to investigate railroad finances—good evening's work. "An ounce of precaution is worth a pound of cure."

Sincerely,

MILTON HARRISON.

Note:

Write him good job.

The answer to Mr. Harrison is given below:

Dear Milton:

Thank you for your personal and confidential note with reference to your visit with Senator Wheeler. I think you did a splendid job, and hope the Senator stays put.

With kind personal regards, I am

Sincerely yours,

PELLEY.

## Harrison Calls Letter a "Mistake"

Senator Wheeler asked Mr. Harrison why he had told Mr. Pelley that he had talked to him when the truth of the matter was, according to the Senator, he had never met Mr. Harrison before until that morning. Mr. Har-

rison admitted that he had never met Senator Wheeler and admitted that it was all a huge "mistake." He was extremely sorry that he had ever written the letter and went on to justify his action by saying that he did not believe that it would ever come to light. He also admitted that his beliefs regarding the finance investigation have been proved to have been entirely wrong and that he regretted having taken such a stand. Senator Wheeler observed that it was just situations like this that made men in public life afraid to talk to anyone in a social way for fear that their actions would be misinterpreted.

It was also brought out that the Railroad Security Owners Association had published a magazine called "The Security Owner" which was circulated to about 50,000 railroad security owners. It was also revealed that some of the large carriers were active in the support of the publication, going so far as to underwrite the subscriptions and send them out to their stockholders. A letter from Mr. Harrison to O. P. Van Sweringen said that "The New York Central, B. & O., New Haven, Seaboard, D. & H., Milwaukee, Illinois Central, Burlington, C. & E. I., and Southern Pacific have already agreed to participate in the underwriting of subscriptions."

#### List of Railroad Subscriptions

A letter from Mr. Harrison to S. T. Bledsoe, then general counsel and now president of the Atchison, Topeka & Santa Fe, stated that:

I am in receipt of your letter of April 15th and give you a list of the railroads that have entered trial subscriptions to The Security Owner, at fifty cents per copy, furnishing the names.

New York Central—Undetermined amount .....	2,000
Baltimore & Ohio .....	2,000
Erie Railroad .....	2,000
Chesapeake & Ohio .....	2,000
Nickel Plate .....	2,000
Seaboard Air Line .....	1,000
Burlington & Quincy .....	2,000
St. Paul .....	2,000
Illinois Central .....	2,000
The North Western .....	2,000
Central Pacific .....	2,000
Chicago & Eastern Illinois .....	500

These have all been closed and there are a number of others considering participation.

I very much appreciate the time and trouble to which you are going in this matter.

#### Fletcher Oblivious of Rail Aid

Judge R. V. Fletcher, vice-president and general counsel for the Association of American Railroads, told Senator Wheeler that he had no knowledge that any railroad money was behind the Railroad Security Owners Association. At this point, Senator Wheeler declared that the railroads were certainly "crazy to think that they could fool the public by this type of propaganda." He went on to say that he had no objection to railroad managements circularizing their stockholders, but to try to cover up the source of funds for such an organization as the group under discussion was sheer foolishness. He referred to the fact that Mr. Harrison's group had tried to make the public believe that it was inspired by and representative of the stockholders and other railroad security owners, when in reality, it was being largely supported by contributions from railroads themselves.

#### Questioning of Harrison Continues

At the March 23 session of the committee Senator Wheeler continued his questioning of Mr. Harrison re-

garding the latter's activities with the Railroad Security Owners Association. At one point he challenged Mr. Harrison to find a single piece of literature sent out by his organization which disclosed to the recipient the fact that the Van Sweringens and the Pennsylvania were helping to finance the publication of the literature. Both Mr. Pelley and Mr. Fletcher reiterated their statements made at the previous hearing to the effect that they knew nothing about the fact that certain railroads were financing Mr. Harrison's activities.

The remainder of the session was devoted to a discussion of the negotiations that finally led to the formation of the present Association of American Railroads. A new witness at this session was Fairman R. Dick, financial adviser to the A. A. R., who told the committee how he had served on a committee which did much of the preliminary work in the formation of the Association. The hearing will be continued during the remainder of the week.

#### Loree Memorandum Introduced

Senator Wheeler held a short hearing on March 25 at which he introduced into the record an unaddressed and unsigned memorandum found in the files of L. F. Loree, president of the Delaware & Hudson, under the heading, "F. R. Prince," which read as follows:

The great difficulty which we have encountered in the past was largely due to the opposition of Mr. Gray and the influence which his large holdings in the trunk lines gave him, with Mr. Williamson of the New York Central and Mr. Willard of the B. & O. When Mr. Harriman was in charge of the Union Pacific he immediately recognized that the prosperity of the Union Pacific and Southern Pacific lay largely in the growing movement of perishable freight traffic from the Pacific Coast to the East. This tonnage is carried in the cars of the Fruit Express. To obtain excessive divisions for the Union Pacific and the Pacific Fruit Express line he acquired large interests in the Eastern Trunk Lines with the result that, whereas he was justly entitled to only 50 per cent of the rate, he obtained directly and indirectly 75 per cent of the rate, which gave additional earnings to the Union Pacific alone last year of \$17,000,000 net. If the Fruit Express had the just proportions that it would ultimately have and will have, it will mean transferring \$17,000,000 of net earnings from the Union Pacific and giving it to the roads in the east. Here is the "colored man in the wood pile" and the hidden basis of the opposition to a railroad adjustment. This loss to the Union Pacific will be more than offset by the sectional coordination which the plan proposes.

Committee investigators said that the author of the memorandum was L. F. Loree, president of the D. & H. and that it referred to the Prince Plan for consolidation of railroads. Senator Wheeler declared that it substantiated Mr. Sargent's charge reported in last week's *Railway Age* that the Union Pacific was exacting unfair divisions from Western Trunk Line carriers.

#### Investigation of Seaboard Co. Ltd.

On March 21, Senator Wheeler announced that his committee investigators had recently been in the Bahama Islands attempting to find out the identity of the stockholders of the Seaboard Company, Ltd., a corporation chartered in the Bahamas to hold stock of the Alleghany Corporation, top holding company of the Van Sweringen interests. The committee had previously discovered that the men in control of the Alleghany Corporation, Frank F. Kolbe and Robert R. Young, had sold \$225,000 of stock of the Alleghany Corporation to the Seaboard Company, Ltd. After contacting the Bahamian attorney for the company, the committee investigators were told

that he could not disclose the attorneys who had employed him but that they were practicing attorneys in the United States. He admitted that the registered stockholders of the company were "dummies" and that he did not know who the real owners of the company were. All attempts thus far to discover the names of the American attorneys have failed.

"Needless to say," said Senator Wheeler, "the Senate Committee is going to continue the search until the hidden purchasers are discovered. In the meantime, however, as the report now made public shows, a new device has been added to the many heretofore disclosed at the hearings conducted by the Senate Committee—a device whereby the established law of the land with respect to control of American railroads and participation in such control, may be evaded or defeated."

## Republic Opens 98-Inch Continuous Strip Mill

THE Republic Steel Corporation on March 15 formally opened up its new 98-in. hot and cold strip mills in the Cuyahoga Valley at Cleveland, Ohio. This is said to be the largest and fastest continuous strip mill in the world. The nine buildings cover 21 acres of the 182-acre site, part of which was made available by changing the river channel.

The maximum delivery speed of the hot mill is 2,121 ft. per minute. It can roll all finished widths from 30 to 94 in., and all finished thicknesses from 18-gage strip to half-inch plate. The plant has a potential employment capacity of over 2,000 men and a normal rated capacity of 70,000 gross tons per month. While the mill is designed for high-speed production, it can readily turn out relatively small orders of specially processed steel, or, as Chairman T. M. Girdler happily expressed it, can "tailor make" the steel to order.

The slabs are charged cold and heated to a temperature of approximately 2,350 deg. F., the furnaces being designed to heat a maximum sized slab 48 in. by 6 in. by 16 ft. There are three such furnaces, each having a maximum heating capacity of 50 gross tons per hour. The slabs are transferred to the hot mill over a heavy-duty delivery table, 115 ft. long. The units of the hot mill include a roughing scale breaker for removing primary scale formed during the heating process, a four-high stand broadside mill, a slab turner, a slab reducer to true up the slab edges and flatten the slab for further rolling, three roughing stands, a delay table, a finishing scale breaker and six finishing stands. Beyond the last finishing stand is a flying shear for cropping and cutting the sheets to the desired lengths. About 350 ft. from the flying shear are two hot coilers, which roll strip up to  $\frac{1}{4}$  in. in thickness, and which will take coils that weigh 375 lb. per inch of width.

Every unit of the mill is precisely controlled with extreme accuracy of operations. The heated slab runs the gamut of passes through all the stands, sometimes taking as much as 50 per cent reduction in a single pass, and is rolled up into a coil almost a quarter of a mile from the heating furnaces in as little as 240 seconds.

Steel which is not to be coiled continues on past the coiler on the hot run-out table and is cut to length and treated as may be necessary.

The equipment in the cold mill includes a 98-in., four-high, three-stand tandem mill; two side trimming and flying shear lines, an upcut shear line; a single stand, 98-in. combination sheet and strip mill; a single-stand, 98-in. skin pass mill, and a slitting line.

The annealing building, which is located between the pickling and cold mill buildings, includes five batteries of four box type annealing furnaces.

An unusual amount of electrical equipment is required in such a plant, the total electric power demand of the entire mill being 20,000 k. v. a. It is said that 143 miles of conduit and 227 miles of wire and cable were required.



Six-Stand Finishing Train in the Hot Mill of Republic's 98-Inch Continuous Strip Mill

## Pullman Inc.

THE annual report of Pullman, Inc., for 1937 shows net earnings of \$12,275,950, after all charges and taxes, as compared with \$6,347,106 in 1936. These earnings accrue from three major lines of business activity, the sleeping car and manufacturing business and security investments. In the sleeping car business there were earnings of \$5,650,927, as compared with \$4,282,677 in 1936. In the manufacturing business earnings of \$9,059,115 more than tripled the earnings of \$2,747,-

proved dressing space for the user of the single occupancy section accommodation.

"Production and earnings of the group of manufacturing subsidiaries were sustained throughout 1937 by the backlog of unfilled car orders accumulated during the last quarter of 1936 and the first five months of the year just closed. The rapid development of new-style light-weight traffic-creative trains in recent years has strengthened the competitive status of the railway passenger transportation service and will undoubtedly tend to hasten replacement of much of the existing stock of passenger

### Traffic and Operating Statistics

ITEM	COMPARATIVE STATEMENT FOR YEARS ENDED DECEMBER 31				
	1933	1934	1935	1936	1937
CARS OWNED .....	8,478	8,473	8,027	8,004	7,763
CARS OPERATED .....	4,944	5,029	5,057	5,355	5,500
CAR MILES .....	710,747,267	737,167,857	758,554,032	825,945,721	872,598,392
REVENUE PASSENGERS:					
Berth .....	9,248,461	10,258,642	10,624,818	12,049,359	12,849,076
Seat .....	4,468,077	4,846,707	4,853,890	5,148,377	4,895,492
TOTAL .....	13,716,538	15,105,349	15,478,708	17,197,736	17,744,568
REVENUE PASSENGER MILES .....	6,141,986,577	6,891,002,293	7,146,269,648	8,354,840,293	9,170,428,451
REVENUE FROM CARS .....	\$39,316,239	\$44,523,817	\$46,758,260	\$52,645,993	\$57,666,648
Average per Car .....	\$7,952.31	\$8,853.77	\$9,246.43	\$9,830.82	\$10,484.46
EXPENSES .....	\$39,880,665	\$44,124,174†	\$48,405,241†	\$49,191,772†	\$53,447,531†
Average per Car .....	\$8,066.48	\$8,774.29†	\$9,572.12†	\$9,185.80†	\$9,717.38†
NET EARNINGS FROM CARS .....	\$564,426*	\$399,643‡	\$1,646,981*	\$3,454,221‡	\$4,219,117‡
TRAFFIC AVERAGES:					
Average Revenue per Passenger .....	\$2.87	\$2.95	\$3.02	\$3.06	\$3.25
Average Net Earning per Passenger .....	\$0.04*	\$0.03	\$0.11*	\$0.20	\$0.24
Average Net Earning per Car per Day .....	\$0.31*	\$0.22	\$0.89*	\$1.76	\$2.10
Average Mileage per Car Operated .....	143,760	146,589	150,004	154,232	158,648
Average Journey per Passenger (Miles) .....	448	456	462	486	517
Average Miles per Car per Day .....	394	402	411	421	435
Average Loading per Car (Passengers) .....	8.64	9.35	9.42	10.12	10.51

\* Figures in *italics* denote loss.

† Includes Pullman proportion of expense of operation of air conditioning equipment.

‡ After provision for Federal Taxes.

438 in 1936 and represent the highest profit level in this division since 1930. The manufacturing business accounted for nearly 59.3 per cent of the total 1937 earnings, as compared with 35.1 per cent during the previous year. Earnings of \$557,686 were realized from security investments, after provision for administrative expenses of the parent company,—a contraction of \$242,894 from 1936. The consolidated working capital amounted to \$67,539,191 as of December 31, 1937, compared with \$57,908,771 at the close of 1936. Current assets at the end of the year amounted to \$82,879,760, as compared with \$73,212,031 at the end of 1936, while current liabilities amounted to \$15,340,569, compared with \$15,303,259 in 1936.

### Sleeping Car Operations in 1937

In the report to stockholders, D. A. Crawford, president, said: "Sleeping car operations in 1937 were characterized by a mid-year transition from a period of sustained recovery in traffic volume and earning to a period of lagging revenues, expanding operating costs, and dwindling margin between income and outgo. In an effort to offset higher unit costs of its operations, the sleeping car subsidiary on November 22, 1937, asked the Interstate Commerce Commission for permission to increase all sleeping and parlor car rates, fares, and charges, 10 per cent, which amount is necessary to restore the margin between revenues and expenses in this division. At the same time, retrenchment in controllable expenditure is being undertaken consonant with the present necessary level of car operations. However, maintenance of equipment is still being carried on at the level obtaining in 1937. Likewise various innovations in Pullman sleeping car service were developed during the year, including a folding type of berth-bed providing im-

proved dressing space for the user of the single occupancy section accommodation.

train cars. The manufacturing subsidiary has continued to play a major role in the development and construction of new-type light-weight cars and unit trains for the rail passenger services. In addition to numerous lots of individual car units there were built for the railroads several of the largest and most successful new-type trains for daylight operation, making a total of 272 light-weight car units built and delivered by Pullman to the railroads in 1937.

### Many Improvements During 1937

"Technical research and experimentation were continued in all divisions in 1937 and many improvements were incorporated in the services and products supplied by the corporation's subsidiaries. Recognizing the large potential demand for freight cars of light-weight, economical design the manufacturing subsidiary is building a series of such cars, of welded, alloy-steel construction, for demonstration purposes and possible sale to interested railroads. These new-type box cars each weigh about five tons, 21.4 per cent less than a car of the best comparable design using conventional materials and construction methods, although of greater strength and better resistance to deterioration from corrosion. Using 1937 mileage figures this reduction in deadweight per car would save aggregate haulage of about 45,000,000,000 ton-miles per annum if all box cars in service were replaced by the cars of the lighter design and would yield an estimated saving of about \$80,000,000 per annum in haulage costs, according to estimates. There would also be made available for revenue production an additional five tons of capacity for each loaded box car to be hauled.

The consolidated income account as of December 31, 1937, as compared with 1936, is as follows:

EARNINGS:		1937	1936
FROM CARRIER BUSINESS:			
Operating revenues .....	\$64,287,199	\$58,334,825	
Operating expenses .....	\$48,854,615*	\$42,213,145	
Provision for depreciation.....	9,781,657	11,839,003	
Total .....	\$58,636,272	\$54,052,148	
Net Operating Income.....	\$5,650,927	\$4,282,677	
FROM MANUFACTURING BUSINESS:			
Net sales and operating revenues.....	\$72,261,847	\$45,251,511	
Cost of goods sold and operating expenses .....	\$58,890,850	\$38,672,860	
Provision for depreciation.....	2,401,095	2,503,177	
Selling and administrative expenses.....	1,910,787	1,328,035	
Total .....	\$63,202,732	\$42,504,072	
Net Manufacturing Profit.....	\$9,059,115	\$2,747,438	
FROM SECURITY INVESTMENTS:			
Income from Securities, Profit on securities sold, and Other Miscellaneous Income.....	\$872,756	\$1,231,023	
Less: Balances in closed banks written off, interest paid, and miscellaneous income deductions .....	85,731	146,125	
Administrative expense of Pullman Incorporated .....	229,339	284,317	
Total .....	\$315,070	\$430,441	
Net Investment Income.....	\$557,686	\$800,582	
TOTAL EARNINGS FROM ALL SOURCES.....	\$15,267,729	\$7,830,697	
Less: Provision for Federal Income Tax.....	2,655,184	1,414,319	
Provision for Federal Surtax on Undistributed Profits .....	336,595	69,272	
BALANCE OF EARNINGS CARRIED TO SURPLUS....	\$12,275,950	\$6,347,106	

\* Includes credit of \$799,774.54 accruing from remission of 1936 taxes under Railroad Retirement Act.

Consolidated Surplus Account			
	1937	1936	
BALANCE OF SURPLUS, as at January 1.....	\$39,958,356	\$39,556,495	
Credit adjustment on account of reduction of Pension Reserve, The Pullman Company.....	3,542,020	.....	
.....	\$43,500,376	.....	
Balance of Earnings from Income Account for year ended December 31.....	\$12,275,950	\$6,347,106	
Adjustment on account of disposition of American Austin Car Co. mortgage.....	25,000	.....	
Adjustment arising from transactions in connection with acquisition of outstanding shares of The Pullman Company.....	260	.....	
Adjustment on account of disposition of Lyrndora Hotel property.....	.....	29,207	
.....	\$12,301,210	\$6,376,313	
.....	\$55,801,586	\$45,932,808	
Less:	\$1,880,494	.....	
Abandonment of manufacturing properties...	1,507,436	\$243,856	
Adjustment of revalued property units (cars) retired .....	10,505,828	5,730,596	
Dividends declared and paid.....	.....	.....	
.....	\$13,893,758	\$5,974,452	
BALANCE OF SURPLUS, as at December 31.....	\$41,907,828	\$39,958,356	

## Brotherhoods To Be Asked to Discuss Problems

MEMBER roads of the Association of American Railroads, at a meeting at Chicago on March 18, voted "to ask for a conference, at the earliest possible date, with labor organizations for the purpose of discussing the whole economic situation of the railroad industry, particularly the situation created by the disappointing decision in the freight rate case, *Ex Parte 123*." At the same time, committees to meet with the brotherhoods were appointed for the Eastern, Western and Southern roads. It is anticipated that a meeting will be held in Washington within a few days.

The committee for the Western territory includes S. T. Bledsoe, president of the Atchison, Topeka & Santa Fe; J. M. Kurn, trustee of the St. Louis-San Francisco; L. W. Baldwin, chief executive officer of the Missouri Pacific; Ralph Budd, president of the Chicago, Burling-

ton & Quincy; Hale Holden, chairman of the Southern Pacific; E. M. Durham, Jr., chief executive officer of the Chicago, Rock Island & Pacific; and Carl Gray, vice-chairman of the board of the Union Pacific. The Eastern committee consists of E. S. French, president of the Boston & Maine—Maine Central; F. E. Williamson, president of the New York Central; D. J. Kerr, president of the Lehigh Valley; M. W. Clement, president of the Pennsylvania; C. E. Denny, trustee of the Erie; and Daniel Willard, president of the Baltimore & Ohio. Members of the committee for the Southern territory include L. A. Downs, president of the Illinois Central; J. B. Hill, president of the Louisville & Nashville; George B. Elliott, president of the Atlantic Coast Line; and E. E. Norris, president of the Southern.

The adoption of the resolution "to discuss the economic situation" with representatives of the brotherhoods indicates the change in procedure made by the executives as a result of developments immediately prior to their meeting. On March 11, the board of directors of the A. A. R., meeting at Washington, voted to submit the question of wage reductions to the member roads at the meeting at Chicago on March 18, because the wage reduction offered the only opportunity for immediate relief from the situation resulting from the inadequate freight rate increase just granted. Following this action by the directors, railroad wage reductions gained national prominence. At the White House conference on March 15, sentiment was expressed that the railroads should be able to earn enough to carry their employees "without wage reductions or lay-offs." Further opposition to wage reductions was evidenced when President Roosevelt, at a press conference on March 15, said that wage reductions were inadvisable and he reiterated this statement on March 18, while the A. A. R. directors were drafting their recommendation at Chicago. Railroad brotherhoods at the same time were voicing objection to wage cuts.

Following these developments, the board of directors meeting prior to the meeting of the general membership on March 18, framed the resolution to grant the committee broad powers to negotiate with the labor representatives and this resolution was adopted by the executives. This resolution leaves the committee in a position to discuss wage decreases, the effect of consolidations and co-ordinations on labor and "feather bed" working rules and to modify its plans in accordance with the outcome of further White House conferences.

George M. Harrison, chairman of the Railway Labor Executives' Association, when informed of the action taken by the railroads, said, "It has been the general policy of organized labor to discuss questions of mutual interest in conferences with representatives of the railroads. I do not see that much can be done for the reason that both railroad management and labor are represented on a committee appointed by the President for the purpose of considering the distressed condition of railroads." He also asserted that there is "no justification for wage cuts in the railroad industry, since the Interstate Commerce Commission granted increases in freight rates for the specific purpose of avoiding such a reduction."

THE SWEDISH STATE RAILWAYS will acquire a controlling interest in the privately-owned Helsingborg-Hessleholm road through the purchase at 80 per cent of par value of 47,034 of a total of 54,000 shares of outstanding capital stock. The private road, which forms a link between the West Coast line and southern main line of the state system, has 149 route-kilometers (92 route-miles) and operates 20 locomotives, 8 motor rail cars, 38 passenger-train cars and 773 freight cars.



## How Santa Fe Met of Unusual F

Regular service resumed speedily  
places by major disaster in

Bridge Completely  
Filled by Wash from  
Cleghorn Canyon

**F**Ollowing an unprecedented rainfall that began on the morning of February 27 and continued without intermission until March 4, the lines of the Atchison, Topeka & Santa Fe in Southern California were cut in more than 100 places between March 2 and 4 by the fury of the mountain streams. The severity of the storm is indicated by the fact that during the period to March 4, a total of 11.15 in. of rain fell in Los Angeles, with greater but unmeasured precipitation over wide areas in the San Bernardino mountains which this road crosses between Barstow, Cal., and San Bernardino, and which range it parallels from the latter point to Los Angeles, crossing numerous mountain streams. Another indication is the fact that all of the other railways in Southern California, as well as highways and highway bridges, were washed out or covered by landslides, while entire towns in the affected section were damaged severely by flood waters of streams that had never before been out of their banks, and telegraph and telephone communication were disrupted for days, while in numerous instances orange groves were destroyed by erosion. Although little rain fell in Los Angeles after March 4, it rained almost continuously up to and including March 11 over most of the Santa Fe's line

between that point and Barstow, often hampering severely the forces engaged in rehabilitation.

Despite this disaster and despite the fact that all communications were paralyzed, the Santa Fe resumed passenger service by noon of March 4, by operating train-connection buses between Barstow and Los Angeles. Moreover, in spite of the damage and the lack of a communication system for several days, the various lines were put back into service at record speed, considering the amount of work that had to be done at many widely scattered places. The Los Angeles-San Diego line was opened on March 9, the Barstow-Los Angeles line on March 10 and the secondary main line between San Bernardino and Los Angeles via Corona on March 17.

### Operating Performances

Meanwhile, outstanding operating performances were being made. The fact that all of the railways in the area were badly damaged prevented any extensive detours being made. Immediately after the line went out, a fleet of buses and trucks were placed in service between Los Angeles and Barstow, via Mojave and



Many Bridges Were Blocked With  
Debris—Typical of the Damage  
Done at Other Points

# Met Challenge Flood

after lines had been cut in many Southern California storm

Three Shovels Removing 20 Ft. of Boulders and Mud Over Double Track Line at Cajon Pass



Victorville, which operated over this 250-mile route for two or three days, until the highway through San Bernardino was restored, after which the shorter route was followed. During the eight-day period while train service west of Barstow was interrupted, more than 4,000 passengers were handled in this manner, trains from the east being turned at Barstow.

The Super-Chief due out of Los Angeles at 8 p. m. on March 4 was run from Barstow, with bus connection from Los Angeles. This train left Barstow at 12:52 a. m., March 5, 1 hr. 35 min. late and arrived in Chicago on time. El Capitan, due out of Los Angeles at 1:30 p. m., March 8, left Barstow at 6:52 p. m., 2 hr. 5 min. late and also arrived in Chicago on time. When it is considered that the schedules of both these trains call for running the 2,086 miles from Barstow to Chicago in 34 hr. 15 min., the excellence of this performance will be realized. El Capitan, for example, made the Barstow-Chicago run on March 8 in 32 hr. 10 min., or at an overall average speed of 62.5 m. p. h. for 2,086 miles.

The next eastbound trip of these two trains was made on March 11 from Los Angeles. Because of slow orders over the recently repaired track and meeting trains under the emergency single-track operation necessary at many

points, the Super-Chief left Barstow 54 min. late and El Capitan left there 1 hr. 3 min. late, both trains arriving in Chicago on time.

In addition to these two bi-weekly trains, the daily Chief was operated into and out of Barstow with a good on-time record. With one exception, any lateness waiting for the bus connection from Los Angeles was made up before arriving at Chicago. On this occasion, connection was made at Barstow with the fleet of buses out of Los Angeles, which was routed via Mojave and Victorville, 250 miles. As the first vehicles to traverse a considerable part of this road, it was necessary to feel the way, so that the trip consumed much more time than later trips. Other eastbound trains were consolidated during the worst period and operated on special schedules. Meanwhile, the westbound trains were operating on schedule, the only delay being between Barstow and Los Angeles, where circuitous routes brought about by highway damage required a run of 250 miles between these points during the first few days.

An embargo was declared on perishable traffic into the affected district, but this lasted only four days. Perishable traffic shipped from the flood area was accepted as soon as the lines were opened. Naturally

Building Temporary Bridge Over North Fork of Lyle Creek. Note Girder in Foreground



under the circumstances, perishable trains experienced considerable delay in getting to Barstow. From that point east, however, time was made up on these trains almost equivalent to the remarkable runs of the streamliners cited above.

### The Damage Done

The speedy recovery was aided by the fact that no major bridges were lost in the disaster. However, on the Barstow-San Bernardino line, 81 miles, there were 27 washouts, involving 19,119 ft. of track, and five locations where mud and rock slides or debris covered the track to a depth of 20 ft. or more in places. The fury of the current is indicated by the fact that, at Cajon yard, where severe washouts also occurred, 200 ft. of concrete flood protection blanket was washed away, as well as at Devore, where 150 ft. of concrete blanket was torn off by the current.

On the San Bernardino-Los Angeles line, via Pasadena, 60 miles, there were 15 washouts, totaling 11,075



Lines of Atchison, Topeka & Santa Fe Damaged by Storm. Arrows Indicate Points Where Tracks Were Cut

ft., as well as locations where several bents of pile trestles were washed away, bridge approaches washed out, and piers settled. On the secondary main line between San Bernardino and Fullerton, 47.5 miles, the track was severed in seven places, in many instances leaving it swinging with deep holes beneath. In one of these instances, the diversion of the Santa Ana river across the track caused by a slide in the channel resulted in a hole 60 ft. deep being dug under the tracks. The Los Angeles-San Diego line, 126 miles, was cut in 18 places, mostly at the north end, including an almost complete washout of the track between Fullerton and Anaheim, 3 miles.

The Barstow-San Francisco line was cut by 9 washouts, involving 1,233 ft. of track, within a space of 4 miles at a point just west of Barstow where the line parallels the Mojave river. This damage, however, was speedily repaired and there was little interruption to the Barstow-San Francisco service.

In addition, none of the Santa Fe's numerous branch

lines in the Southern California territory escaped its quota of washouts and slides as the adjacent mountain streams went on a rampage.

Apart from the large number of scattered spots where the damage occurred, another difficulty in getting the lines back in service was the complete lack of communications for two days, during which the only way of getting messages through was by means of radio communication which was almost completely swamped with messages. Airplanes were grounded and for the first few days highways were impassable. The only way operating and engineering officers and the isolated section gangs could get information as to what had happened was to walk, and even this was difficult everywhere and impossible in some cases, because of the swollen streams and washed-out bridges. However, officers and men alike kept at it and remained on duty for 36 to 48 hrs. at a time.

### Emergency Service

The most important thing, when it became apparent that several days would be required to re-open the railway line, was to establish service into and out of Los Angeles for passengers and mail. All the buses and trucks of the subsidiary Santa Fe Transportation Company were called into service, and many more units of highway equipment were hired. A fleet of 15 Santa Fe buses and a truck were the first vehicles to traverse the damaged highways from Los Angeles to Barstow. Because of the fact that no information was available at first as to the condition of the highways, this fleet had to feel its way, with numerous detours via a round-about route, eventually arriving at Barstow to pick up the marooned passengers there on the morning of March 4. After the first fleet got through, a regular service was established that functioned efficiently until the railway line could be re-opened.

### Rebuilding

Man power was the first requisite to get the line back in service. Fortunately sufficient men were available at many points to recruit the larger number of extra gangs that were necessary. So far as practicable, these gangs were organized locally, because of the transportation difficulties in getting men from place to place. However, the Santa Fe closed its Los Angeles shop and its large shop at San Bernardino, using the men in restoration work, while it recruited as many men as practical from other departments and from other parts of the line, particularly bridge and building crews. The gangs as organized ranged from a few men to as many as 250, depending on the available supply and the seriousness of the damage at the particular spot where they were recruited.

Supervision of these gangs was provided by engineering and operating officers and section foremen. Officers and gangs from adjacent districts were borrowed and penetrated to the spots where they were needed as quickly as possible—on foot in many instances. Contractors were considerably in demand by many industries. The Santa Fe, however, was able to supplement its own forces by the gangs of experienced contractors at some locations. The provision of hand tools for these men presented a problem which was solved by scouring the adjacent country for stocks of such tools and by sending them in from adjacent divisions.

Materials and machines were equally important, but, since all sorts of industries, as well as the railroads, had been damaged in the flood, these were more difficult to

procure. All of the maintenance equipment owned by the Santa Fe in the affected area was mobilized at once. In addition, as soon as the magnitude of the disaster was realized, a trainload of bridge timbers, hardware and other material was loaded at the treating plant at Albuquerque, N. M., and sent west to Barstow with 2 pile drivers and 2 ditchers, in charge of such engineering officers as could be spared, and with three bridge gangs. These men penetrated into the damaged territory west of Barstow as rapidly as possible, rebuilding the line as they went. Two pile drivers were secured from the Southern Pacific, while fortunately the Santa Fe had two of its own in the area, one at Los Angeles and one at San Bernardino, which did effective work in the section before the line was opened from the East.

Tractors equipped with bulldozers, pile drivers, clam shells, ditchers, crawler shovels, draglines and cranes were rented wherever possible and worked night and day, the bulldozers proving particularly effective in repairing the damage done by the numerous side washes. The crawler shovels were used in building shooflies around bad holes in several places, and the pile drivers were in constant service replacing lost bents of pile trestles.

Rock was dynamited from the cuts in the mountains and many tons of waste rock and gravel were purchased. Large quantities of sand were also necessary for bagging to stop side washes at various points where strong currents were still running, and much diking and cribbing had to be done. Two of the piers settled on the bridge over the Los Angeles river near that city and the approaches were washed out. This required much new filling for the approaches and shimming on the piers. As an emergency measure, 500 jetties were purchased to protect the new fills in Cajon pass between Cajon and Devore, and many more such jetties have been ordered for permanent installation. As stated previously, the work of rehabilitation was seriously hampered by the almost continuous rainfall succeeding the severe storm which ended on March 4, while a further heavy rain on the night of March 10 swelled Cajon creek again, causing some further damage, particularly to the new fills. However, the new damage was speedily repaired and service was again resumed by mid-afternoon of March 11.

of the Atlanta (Ga.) Freight Bureau; F. S. Davis, of the Maritime Association of the Boston (Mass.) Chamber of Commerce; P. H. Johansen, of the North Carolina Utilities Commission; F. C. Lysle, of the Memphis (Tenn.) Freight Bureau; B. J. Drummond, of the Mason City (Iowa) Chamber of Commerce; J. S. Brown, of the Chicago Board of Trade; Charles R. Seal, of the Baltimore (Md.) Association of Commerce; Herman Mueller, of the Port Authority of St. Paul, Minn.; Charles E. Blaine, representing the American National Livestock Association and other organizations; John Vesey, of the Farmers Educational & Co-operative Union of America; C. B. Bee, corporation counsel of Oklahoma; Walter K. Granger and Charles A. Root, of the Utah Public Utilities Commission; and H. E. Ketner, commerce counsel, Virginia State Corporation Commission, who appeared also for other regulatory bodies of other states, including Ohio, New York and Louisiana.

#### Would Protect Marginal Lake Rates on Grain

All of the foregoing limited most of their testimony to the special interests of their principals, since the general evidence in opposition was offered by C. E. Childe, chairman of the traffic committee of the Mississippi Valley Association, whose presentation was reported in last week's issue. Witness Brown of the Chicago Board of Trade presented a novel argument on grain shippers' desire to retain marginal rates which they now enjoy on lake vessels. He was fearful that such vessels would lose profitable coal tonnage which enables them to quote a low return-haul rate on grain. Mr. Brown described the operation involved, giving an example of a round trip which would bring the vessel "a loss of about \$775 on the grain cargo and an approximate profit of \$1,425 on the coal cargo."

Despite the expressed desire of Chairman Wheeler to bring the bill before the Senate at the present session, the committee has not yet resorted to extra sessions to expedite the testimony of the 70 or more opposition witnesses who desire to be heard. The two-hour morning meetings with which the hearings started have continued, with attendance of both Senators and audience falling off as time goes on.

#### Federal Barge Line Quite an Enterprise

General Ashburn opened his statement with an expression of his "fixed opinion that the rehabilitation of inland waterway transportation has been brought about through the efforts of the Inland Waterways Corporation." To give the committee an idea of his organization's importance the general pointed out that the Federal Barge Line, "operated as a pioneering and demonstration agency of the government, has assets in excess of \$25,000,000, operates upon some 3,400 miles of river, serves 42 out of the 48 states through joint rail-water rates, employs approximately 3,300 men, and has an annual payroll of \$3,271,940."

The general is convinced that "if the passage of this bill accomplished nothing more than the destruction of the Inland Waterways Corporation its proponents, particularly the railways, would hail that as a great victory." And, the witness went on, "so it would be, for it is this one agency of the government, which has been successful in ameliorating some of the conditions in our interior rate structure to such an extent that the prosperity of any single community is not dependent upon the stroke of a pen of a railroad president; which has brought about a demand for the upbuilding of industry in the midst of

## Ashburn Joins Foes of Pettengill Bill

WASHINGTON, D. C.

**M**AJOR General T. Q. Ashburn, president of the government-owned Inland Waterways Corporation this week told the Senate committee on interstate commerce that, insofar as inland waterway transportation is concerned, the Pettengill bill to repeal the long-and-short-haul clause of the Interstate Commerce Act's fourth section is aimed primarily at the destruction of the Federal Barge Line, and that enactment of the measure would spell the doom of inland water transportation which the shipper "has gladly taxed himself to provide." The general let it be known that his views were his own "and should not be taken as those of a representative of the President."

General Ashburn testified on March 22 after several opposition witnesses had been heard at sessions subsequent to those reported in the *Railway Age* of March 19. Among such witnesses were Frank M. Shook, secretary of the Tri-State Packers Association; J. R. Bachman,

agriculture; and which is gradually but surely accomplishing that object. The slogan of the railroads has been, since the inception of this corporation in 1924, 'Down with the Inland Waterways Corporation—if we can kill this we can kill any other water competition.'

Continuing, General Ashburn asserted that passage of the bill would destroy all the "feeble safeguards" the public now has, and give the railroads absolute control of rate-making. Such power, the witness suggested,

could be used to build one section of the country at the expense of another; and he does not think that sufficient protection would remain in sections 1, 2 and 3 of the act. To support the latter view he cited "the terrible rate structure under which a large part of our country is now handicapped." When inland waterway transportation goes, General Ashburn warned, the shipper has "laid himself open to be preyed upon or ruined for the benefit of the railroads."

## White House Action on Railway Situation Next Week

President Roosevelt expects by that time to follow through on report of Splawn-Eastman-Mahaffie committee

WASHINGTON, D. C.

PRESIDENT Roosevelt expected the report of his railroad committee, comprised of Interstate Commerce Commission Chairman W. M. W. Splawn and Commissioners Joseph B. Eastman and Charles D. Mahaffie, to reach him at Warm Springs, Ga., on the afternoon of March 25, after which he plans to ask for several opinions and to follow through with some action—perhaps a message to Congress—by the end of next week. This was the situation at the time of the President's press conference in Washington, D. C., on March 22 before he left the capital for a 10-day trip.

The Splawn-Eastman-Mahaffie committee was appointed by the President on March 17 at the second meeting of his railroad conference. The 14 conferees, listed in last week's account of the first White House meeting on March 15, also participated in the March 17 discussions. The President, according to an announcement by Stephen Early, one of his secretaries, designated the three I. C. C. members, with Mr. Splawn as chairman, "to give him on Thursday, March 24, complete, definite and factual recommendations for immediate action by Congress in regard to the whole railroad situation which is critical."

### Roosevelt Off-Hand View Is That Rail Wage Reduction Would Not Be Advisable

Meanwhile, as reported elsewhere in this issue, member roads of the Association of American Railroads, meeting at Chicago on March 18, invited representatives of railroad labor to confer with a committee of railway presidents. This conference was scheduled for March 24 at Washington. The invitation to labor did not mention the wage cut, which the A. A. R. board of directors voted at its March 11 Washington meeting to bring before the March 18 Chicago session; and which the Railway Labor Executives' Association March 17 statement said would be "totally unwarranted" and "will not be accepted." At his March 18 press conference President Roosevelt said, in response to a question on the advisability of a railway wage cut, that he hadn't given the matter any consideration. He added that he would say off-hand that a reduction would not be advisable.

Speaking for his committee, Chairman Splawn, upon

leaving the March 17 White House conference, said: "We are going into session this afternoon to go to work. We will not hold any hearings. The results will be submitted to the President and he then will consider them with the other advisers. We only have until next week and will tackle all phases of the situation. I think we made good progress today and talked over more of the general railroad problem. We adjourned after the President indicated he would expect us to come back with something more specific and definite after these preliminary discussions."

Although, as Chairman Splawn said, the committee held no hearings it did receive a delegation of railway executives, headed by A. A. R. President J. J. Pelley on March 21; and a committee of the National Industrial Traffic League, headed by Executive Committee Chairman W. H. Day, on March 22. Also, Chairman Splawn called at the White House on March 22.

### Immediate Problems to Fore

The program which the committee would bring back, Chairman Splawn said, would deal with immediately-pressing railroad problems, such as the carriers' need for Reconstruction Finance Corporation Loans, short-term financing and refinancing. These immediate financial problems, he added, were the subject of much discussion out of which, however, there came no definite figures. Asked to differentiate between what he thought were plans for immediate action and long-range plans, the chairman said that if he could do that there would be no need for a committee meeting. He explained that his group would have to think of what might be called long-range plans while it went over proposals for immediate action.

Mr. Splawn further revealed that discussions at the March 17 conference covered all imaginable phases of the railroad problem, and various solutions that had been offered, including compulsory consolidations and special procedures to expedite railroad reorganizations. But there emerged no agreement as to the remedy, or even a part of a remedy. A considerable portion of the conference's time was devoted to the consolidation and reorganization discussions, and several opinions on those

matters were expressed. Among the latter was the view of one conferee, whom Chairman Splawn identified only as a high railroad authority, that 70 cents of every dollar saved through consolidations of facilities would come out of payroll. Estimates of possible savings from such consolidations were from \$200,000,000 to \$250,000,000 a year.

#### No Mention of Government Ownership

In the latter connection, the chairman continued, the opinion was expressed that "strong powers" would be required. Pressed for a definition of "strong powers" he explained that such would be practically equivalent to the government taking over such roads as it was desired to consolidate. There was, however, no mention of government ownership as such, according to R. F. C. Chairman Jesse H. Jones, one of the conferees, who discussed the March 17 White House meeting generally at his press conference on the afternoon of the same day.

The consolidation discussions, Chairman Splawn went on, brought out how such developments would affect communities, railway managements, employees and markets. All of these, it was pointed out, might be expected to oppose consolidations which ran counter to what each conceived to be its best interests. Amidst this discussion of compulsory consolidation there was talk of, but no agreement on, permissive mergers.

Also, a great deal of attention was given to the financial condition of the railroads, particularly those in the Middle West, where a large percentage of the mileage is in the process of financial reorganization. The problem with regard to those roads, Mr. Splawn said, was to restore them to a paying basis. Holding companies were mentioned three or four times but there was no consensus as to them. Back of the proposal to set up a special body to deal with railroad reorganizations, Chairman Splawn said, was the idea that such a tribunal might expedite procedures by encouraging trading among divergent interests and compromising differences. Some of the conferees, he added, thought that there had been too much shuffling back and forth in reorganization proceedings between the I. C. C. and the courts. The discussions of a special reorganization tribunal covered alternative suggestions for making it a division of the I. C. C. or an independent agency. As one conferee was reported by Chairman Splawn to have put it, there should be somebody to handle reorganizations to a conclusion so as to shut out the idea of an appeal from one tribunal to another.

#### Matters for Legislation

This reorganization question is one which Chairman Splawn thought might possibly lend itself to legislation at the present time. Others are consolidations and the financing of sore spots.

The conference also discussed aid to financially weak carriers through a readjustment of divisions of joint rates; but no one present had an opinion as to how the matter should be determined. Mr. Splawn pointed out that the I. C. C. has jurisdiction over such divisions, and that decisions in connection therewith must be made upon an elaborate factual record.

Such matters as co-ordination of facilities, pooling of traffic, and the elimination of what Chairman Splawn called de luxe terminal warehouse service received considerable attention. In this connection there was discussion of the proposal to set up an independent board, or a division of the I. C. C., with power to issue orders

requiring co-ordinations. There was no consensus on this point.

R. F. C. Chairman Jones said that the White House meetings, which were "in the nature of a diagnosis," had been "very clarifying." He added that all conferees were "of approximately the same opinion" that something should be done and can be done; also, that legislation would be required. Mr. Jones went on to say that what seems to be in the mind of everyone thinking about the railroad problem (not necessarily the White House conferees) is the idea that "there has to be a correction of the competitive situation—not only between railroads, but between all transport agencies." It was obvious to Mr. Jones that management, without some additional authority, "cannot adjust itself to meet competitive conditions." The only agreement that the R. F. C. chairman found among the White House conferees was an accord on the need for doing something.

#### Jones Sees Need for Legislation

Mr. Jones' own view is that legislation is needed to compel the doing of things in addition to consolidations. He believes that there must be bankruptcy-act amendments before many railroad reorganizations can be brought about. He went on to say, however, that it is "pretty hard" to reorganize a railroad now because of the lack of earnings—most of the railroads are worth "a great deal more than they are selling for." In the latter connection Mr. Jones explained that Chicago, Milwaukee, St. Paul & Pacific, a "good railroad," is appraised in financial markets at only about 25 per cent of the face value of its mortgages; and the Chicago & North Western "is selling for about 30 cents on the dollar of its mortgages, with nothing for the stock."

Asked about the desirability of merging those two properties, Mr. Jones said that the R. F. C. has been making studies "to see what savings could be made if the same management were operating both." The lending agency is just trying that one study, because it thought it presented a good typical case where the railroads involved serve the same general territory.

#### Must Allow Roads Fair Return

In concluding his remarks on the railroad situation, Mr. Jones observed that the railroads "have got to be allowed to earn a fair return." And while they must take their losses like other business, he nevertheless felt that when the present emergency is cleaned up, the carriers, as he said before will be worth more than they are selling for. Also, Mr. Jones thinks the R. F. C. will have to continue making loans to needy railroads as it has been doing. Asked for his opinion of the Black Tom claims offered by the Lehigh Valley as collateral in a pending application, Mr. Jones replied that the R. F. C. is "not worried about liquidity—we're a generous big brother."

The conference of the railway executives with the Splawn committee gave rise to some speculation as to an A. A. R. plan for solution of the railroad problem. Some publicity in this connection was given to a program with "chief points" as follows: Termination of Federal Barge Line operations; relaxation of restrictions on government loans to railroads; postponement of financial reorganizations; enactment of the Pettengill bill; and a moratorium on "make-work" legislation. While these are matters in which the railroads have a vital interest, it is nevertheless pointed out that they do not comprise a program sufficiently broad to comprehend a general A. A. R. declaration of policy.

## Snoqualmie Ski Bowl A Traffic Builder

THE attracting of 1,000 skiers a day instead of an anticipated 300 is the record established by the Snoqualmie Ski Bowl which the Chicago, Milwaukee, St. Paul & Pacific opened to the public at Hyak, Wash., on January 9. This bowl was constructed by the Milwaukee as a means of developing passenger traffic among the estimated 95,000 ski enthusiasts in the vicinity of Seattle, Wash., and Tacoma. Its success has been due to the efforts of the railroad's personnel and, in no small measure, to the natural enthusiasm of the public. One of its influential sponsors has been a business college which is located in Seattle and Tacoma and which provides recreational activities for its students. Another has been the Parent Teachers' Association at Seattle, which endorsed the bowl because students could ride safely on trains instead of subjecting themselves to the dangers of snow-covered mountain roads leading to other ski slides.

Snoqualmie Ski Bowl is just east of Snoqualmie tunnel, 61 miles east of Seattle, 80 miles east of Tacoma and 248 miles west of Spokane on the main line of the Milwaukee in the Cascade mountains.

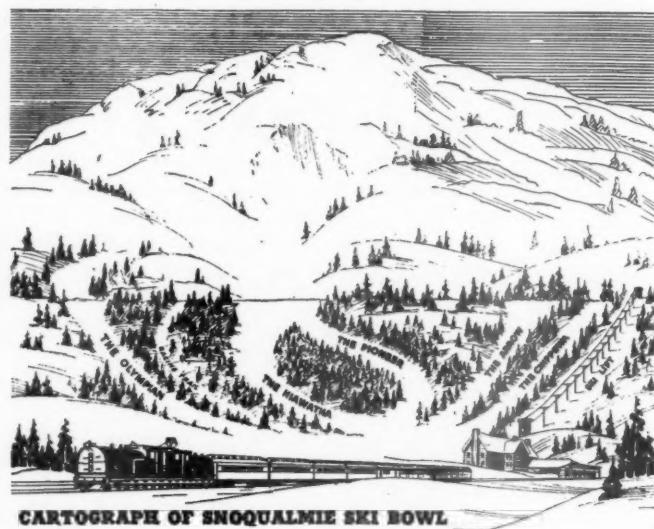
### Courses for Both Novice and Expert

This "skiers' paradise," consists of several courses, designed to meet the requirements of both the novice and the expert, a ski trail and tow and a lodge, all of which are electrically lighted for night use. The courses consist of snow hills and slides for the beginners and five courses of from 1,200 to 1,600 ft. in length for more proficient skiers. The latter, which terminate in a large area or bowl at the base of the hill, have been named the Olympian, the Hiawatha, the Pioneer, the Arrow and the Chippewa, after trains operated by the Chicago, Milwaukee, St. Paul & Pacific.

The ski trail, called Racine Trail, is designed to afford an easy ascent to the starting point of these courses. It is supplemented by a ski lift, an electrically-driven cable to which are attached handles which the skier can grab and be hauled up the hill at the rate of 4 m.p.h. It is operated as a concession by a resident of Seattle at the rate of three rides for 25 cents, or \$1 for a day's usage.

The two-story lodge, constructed by the bridge and

building department of the railroad, is especially designed for skiers. On the lower floor are a waxing and drying room for skiers, check rooms, toilet facilities and a store concession where skis or shoes or other equipment may be purchased or rented. Benches occupy the wall space. A double stairway leads to the upper floor, on the east wall of which is a large fireplace. Against the west wall is a gramophone which provides music for a dance floor and at the same time supplies music to outside amplifiers that are directed toward the ski activities. A long circular lunch counter, also operated as



a concession, dispenses coffee and sandwiches. An exit from the upper floor by way of outside steps makes it possible for a skier to step out on the snow at any level and ski directly from the lodge to the courses. A covered platform extends from the train to the lower floor of the lodge.

### Special Trains Operated

In arranging service to and from the ski bowl the comfort and enjoyment of passengers also has been insured. On every Saturday and Sunday, weather permitting, two trains are operated. The Early Bird leaves Tacoma at 5:45 a. m. and Seattle at 7 a. m., and arrives at the bowl at 9:15 a. m., while the Morning Ease leaves Tacoma at 8 a. m. and Seattle at 9:15 a. m., and arrives at the bowl at 11:30 a. m. Both trains leave the bowl at 6 p. m. and arrive in Seattle at 8:15 p. m. and Tacoma at 9:30 p. m. Overnight service is provided from Spokane.

On each Friday night a train leaves Seattle at 5:45 p. m. and arrives at the bowl at 7:45 p. m., while returning it leaves the bowl at 10 p. m. and arrives in Seattle at midnight. The night train operated on January 14, according to the Milwaukee's announcement, was the first moonlight ski train ever to be operated. In addition to these trains, others are operated on week days and evenings for special parties. The round trip fare from Seattle is \$1.70 and from Tacoma \$2, while party fares are also available.

A baggage car on these trains is equipped with racks so that skis can be checked for a nominal charge. A recreation car provides room for dancing.

An interesting side light on this venture is the discovery that at least 35 per cent of the patrons of the ski trains have never been on a train and these excursions provide their first introduction to railroads.



A Two-Story Lodge Was Especially Designed For Skiers

# Motor Transport Section

## Canadian Pacific Buys Big Fleet

Truck operations at Toronto and other Ontario points taken over by railway

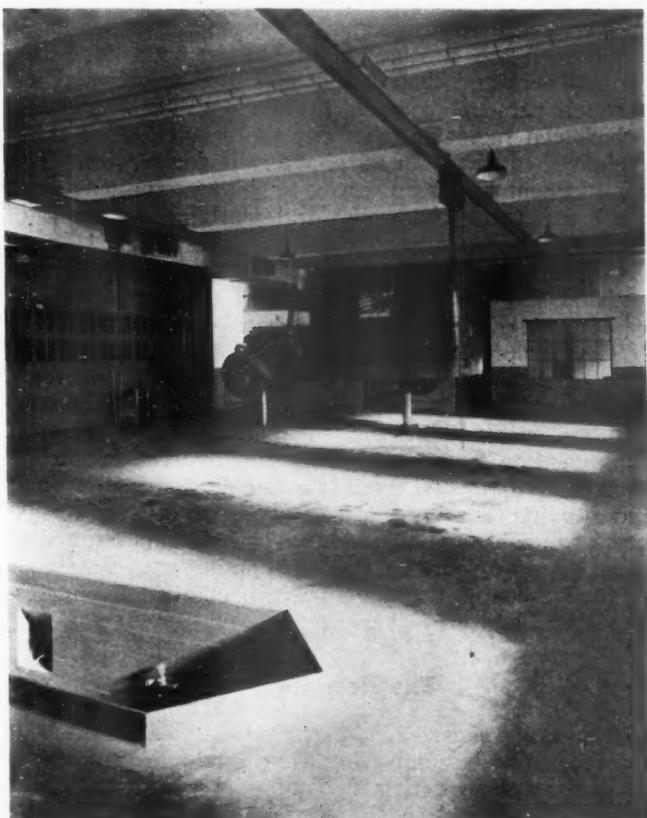
ON January 1, 1938, the Canadian Pacific, through its cartage department and express division, took over the operation of its own pick-up and delivery service at Toronto, Ont., London and Guelph, as well as an inter-city operation between Galt, Ont., and Guelph. This is in accordance with the plan, based on experimental services started in Quebec early last year, whereby the express and cartage departments of the railway handle local trucking services, replacing private contractors, as described in the *Railway Age* of October 23, 1937, page 577. The railway had already purchased a fleet of 103 new trucks to take care of the Montreal, Ottawa, Sherbrooke, Three Rivers and St. Hyacinthe service, and this has now been added to by the purchase of 101 trucks for the new Toronto service alone, bringing the fleet purchased by the Canadian Pacific in the last 12 months to approximately 225 trucks. In addition, this program has involved the building of large modern garages at Montreal and Toronto for handling this large fleet.

The C. P. began truck service on its own account on March 1, 1937, when its express company took over the freight cartage work at Ottawa, Ont., and Sherbrooke, Que. On April 1, highway operations between Montreal and St. Jerome were taken over by the express company, and on May 1, freight cartage operations in the entire Montreal district, including Highlands and Lachine. The service was extended to include St. Hyacinthe, Que., and Three Rivers on June 1. The success of direct operation of trucks by the railway rather than through contractors has led to the expansion of the system under which the express company undertakes the cartage work at charges formerly assessed by independent contractors, but on which, in every instance, increases were being demanded.

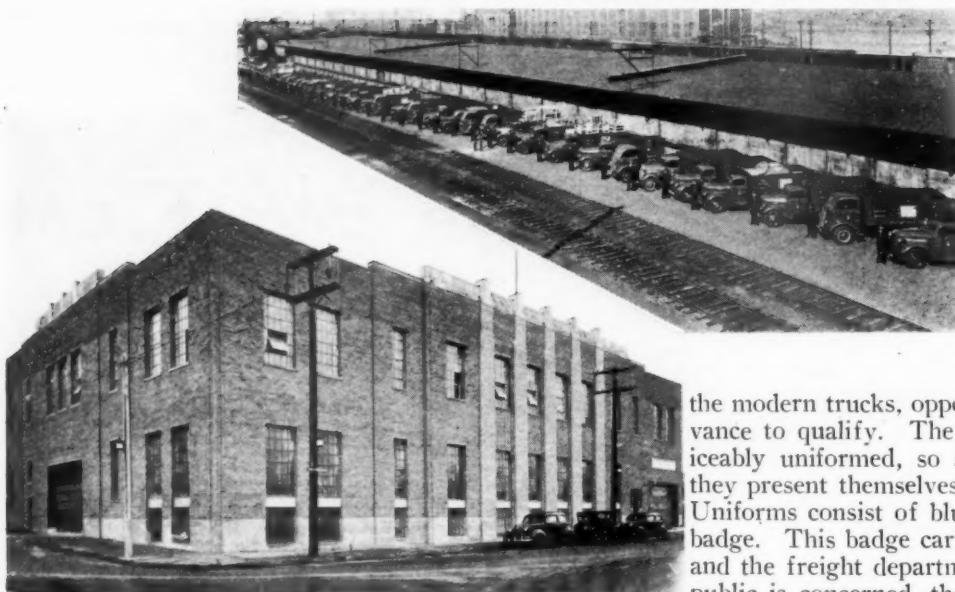
### Why Change Was Made

In the last five years, the Canadian Pacific has materially improved its l.c.l. freight service and now makes overnight deliveries between points where the fastest time on merchandise prior to a few years ago was second or third morning delivery. To meet the competition of unregulated transportation on the highway, the railway established competitive rates, increased the speed of freight trains, undertook highway transport work and extended free pick-up and delivery service. While the improvement in equipment and power enabled the railway to reduce the running time of freight trains between terminals materially, it was essential that at the commencement and completion of the rail haul there should be modern and rapid methods of performing pick-up and delivery service, since freight service no longer begins and ends at the freight shed, and the railway's interest in the efficiency and cost of cartage service increased in line with the increased extent to which the cost was absorbed in the freight rate. Complaints against the cartage service were increasing and the railway was confronted with demands from contractors for increased cartage allowances, but had no opportunity to control the efficiency or cost of the service.

The express company was originally organized to perform a complete transportation service for picking up merchandise on shippers' premises and delivering it to the premises of consignees. In building up its business and shipper good will, it found pick-up and delivery service performed by its own employees one of its greatest assets and most important in securing traffic. The express vehiclemen are not just teamsters, but are transportation salesmen selected and trained accordingly, and the express representatives have acquired valuable experience in producing efficient and economical vehicle service to secure and deliver merchandise. With this



The New Garage Is Completely Outfitted



Above: Part of the New Canadian Pacific Fleet. Below: The New Garage in Toronto

agency available within its own organization, the Canadian Pacific decided to make use of its services to bring the movement of merchandise under C. P. responsibility from the shipper's door to the consignee's place of business.

#### Equipment

Because vehicles best adapted to freight cartage work must be heavier than would be efficient or economical for express work, and peak load requirements for pick-up and delivery in both express and freight service come at practically the same hours each day, and express and freight vehicles operate to and from different terminals, it has not been found practicable to use the same vehicles to handle both express and freight at larger terminals. It was decided to motorize the freight cartage service completely and to adopt a distinctive color and lettering for the large fleet, so that the inauguration of the new service would be impressive and have an immense advertising value.

The trucks vary as to make and capacity, although 2½ to 3-ton capacity predominates. A number of trucks are equipped with closed bodies to afford protection to valuable traffic, such as tobacco and silk, but generally, the bodies are of the platform type, with solid sides 42 in. high. Body lengths vary between 11 ft. and 15 ft. For handling heavy transfer loads between terminals, tractors and 20-ft. semi-trailers having a capacity of 8 tons are used. All of the trucks are equipped with pneumatic tires with duals on the rear. A number of the trucks are of the cab-over-engine type—a unit of this type with 99 in. wheelbase will take a body 11 ft. long, whereas with the standard type chassis, a wheelbase of 157 in. would be required. There is a distinct advantage in operating trucks of the cab-over-engine type with short wheelbase in congested street traffic areas and where curb parking space is limited; there is also an advantage in connection with garage storage space. Killarney green was selected as a good-wearing, attractive basic color. The trucks are lettered "Canadian Pacific" in gold leaf on the side panels and carry the Canadian Pacific freight crest on the cab doors.

To operate this fleet of trucks, men were carefully selected, and every opportunity given to suitable employees of former contractors to qualify. If they had other necessary qualifications, but were unable to drive

the modern trucks, opportunity was afforded them in advance to qualify. The vehiclemen are neatly and serviceably uniformed, so as to be readily identified when they present themselves to accept freight from shippers. Uniforms consist of blue overalls, windbreaker, cap and badge. This badge carries the name "Canadian Pacific" and the freight department crest. So far as the general public is concerned, the whole set-up is tied directly to the Canadian Pacific freight service.

Each freight cartage vehicleman is now an active solicitor for freight traffic. The express and freight cartage vehiclemen exchange information secured as to traffic moving, and assist each other in the development of traffic for both services. Express and freight solicitors are encouraged to become acquainted with the vehiclemen assigned to routes in their districts, to build up confidence between solicitors and vehiclemen and to facilitate the solution of traffic problems. Joint meetings are held for this purpose, where the problems are frankly and enthusiastically discussed, and there is close co-operation between freight staffs and the freight cartage service. Complaints as to cartage service have been eliminated, and the public appreciates and has responded to the new service.

The vehicles are assigned to specific routes and the vehiclemen are encouraged to become acquainted with the shippers and their needs, and to develop good will through personal contact. While on their routes, the vehiclemen regularly telephone the cartage office at the freight shed to obtain telephone calls for service. This arrangement speeds up service to shippers and cuts down truck mileage. The wages and working conditions of the cartage department employees are defined in an agreement with the express company, which was negotiated and executed by officers of the brotherhood to which both cartage and express employees belong.

The accounts of the freight cartage department are kept separate from the express accounts as to property, equipment, revenue and expenses, including depreciation and taxes. To the extent that there is joint use of equipment or garages as between the express and freight cartage departments, there is a fair division of expenses and carrying charges. Close co-operation between the express company and the railway has already resulted in some saving of expense due to adopting modern, simple internal accounting practices which eliminated unnecessary detail and clerical work.

#### The New Garage

A new garage building, costing \$350,000, has been constructed at Toronto to house the new fleet of trucks as well as the existing fleet of express trucks. This building is of modern, fireproof construction, 156 ft. by 276 ft. in area, and consists of two floors connected by a concrete ramp. The main structure is built of rein-

forced concrete and the exterior walls and partitions are of brick and terra cotta.

The actual garage floor area totals 88,500 sq. ft., sufficient to house 200 trucks. Truck access between the two floors is by means of a ramp, with a maximum grade of 10 per cent, equipped with safety traffic lights at the top and bottom, which are actuated by the passage of the trucks. Three wide truck entrances, equipped with power-operated overhead doors, aid efficiency of operation.

The garage is equipped with full shop facilities for the repair and painting of trucks. Such facilities include a depressed repair pit, a hydraulic hoist and a two-ton

overhead chain hoist, as well as complete equipment of electrically-driven tools. The greasing pit is large enough to accommodate two trucks and is fully equipped with greasing outlets, pit lights, electric outlets and a submerged tank for the storage of used oil drained from the trucks.

The pump house is located on a railway siding directly opposite the garage. Gasoline is unloaded mechanically into underground tanks and pumped from there into three gas dispensers on the ground floor of the garage. All of the buildings are conveniently located with relation to both the express and railway terminals.

## M. P. Bus Activities Widespread

Coach-operating subsidiary covers large territory and gives flexible service

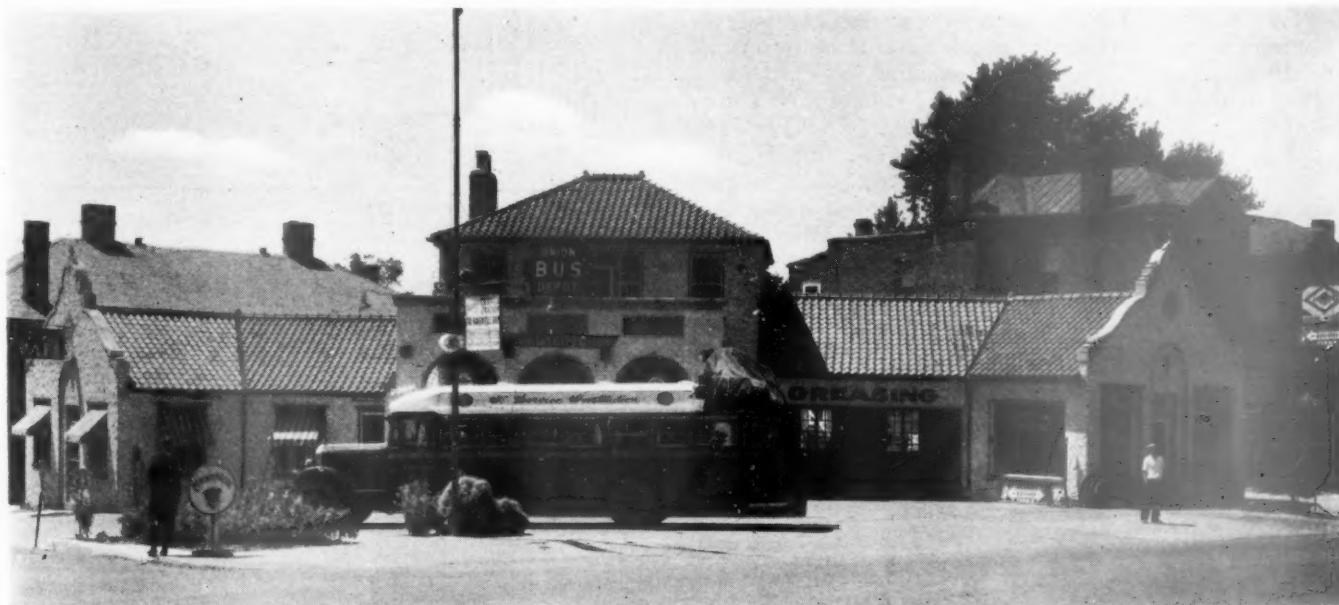
**I**N less than ten years, the Missouri Pacific Transportation Company, wholly-owned highway subsidiary of the Missouri Pacific, has extended its operations over practically all of the territory served by the parent railway. Bus lines of this company are now operated in Missouri, Nebraska, Kansas, Colorado, Illinois, Tennessee, Mississippi, Arkansas, Louisiana and Texas. Oklahoma is the only state served by the railway that is not also served by the railway's bus lines. The operations extend from St. Louis, Memphis and New Orleans on the east to Salt Lake City on the west, and from Omaha on the north to Brownsville, Texas, on the south. Moreover, as the result of being a charter member of the National Trailways System, the M. P. Transportation Company is playing an increasingly important part in long distance and transcontinental bus traffic. The company operates 147 buses over 4,925 route miles.

The principal through routes extend between St. Louis

and East Texas points, as well as cities in the lower Rio Grande valley; between St. Louis and Memphis and Helena, Ark.; between St. Louis, Kansas City, Omaha, Denver and New Orleans; and between St. Louis and Salt Lake City.

In addition, through routes have been built up in connection with other bus companies to provide close connections and a number of alternate routes. For example, it is possible to leave New York and connect in St. Louis with other buses for Brownsville and other Texas points with only a 10-minute wait. On this daily schedule, a passenger may leave New York Monday morning and arrive in Brownsville Thursday evening.

Four separate connections are operated in both directions between New York and St. Louis for M. P. buses west and southbound. Two of these run via Pittsburgh and Chicago and two via Washington and Cincinnati. The first two are operated by the Safeway Trailways between New York and Chicago and the



Neatness and Convenience Is Characteristic of M. P. Bus Stations Even in Smaller Towns

Santa Fe Trailways between Chicago and St. Louis, while the other two are via the Pennsylvania Greyhound Lines between New York and Washington, and the Capital Greyhound Lines between Washington and St. Louis.

### **Southbound Connections**

The M. P. Trailways southbound connections with these routes operate between St. Louis and Poplar Bluff, Mo., where a line branches off to Memphis, Tenn., and Helena, Ark. The main line continues to Little Rock, Ark., where connection is made for New Orleans via Natchez, Miss. Shreveport, La., is also reached by a connection with the Tri-State Transit Company. The main line buses continue from Little Rock to Marshall, Texas, where connection is made with the Sunshine Trailways for Dallas, Texas, with further close connections west from Dallas to El Paso via the Southwestern Greyhound Lines, and from El Paso via Phoenix, Ariz., to Los Angeles by the Pacific Greyhound Lines.

The M. P. buses continue from Marshall to Palestine, Texas, where close connections are made with the trains of the parent railway for Austin and San Antonio and with the Bee Line Coaches for Waco. From Palestine, the M. P. buses continue to Houston, with connections for Galveston.

The M. P. Trailways have a considerable operation in the lower Rio Grande Valley, with a line north to Corpus Christi. This portion of the bus route connects with the main routes of the M. P. by means of Bowen Motor Coaches between Houston and Corpus Christi, and through schedules are operated from the north, in addition to numerous local services between the thriving agricultural communities in the valley.

### **Westbound Connections**

The westbound connections of the M. P. Trailways operate from St. Louis to Kansas City, thence to Denver, and continue to Salt Lake City via the Denver, Salt Lake, Pacific Trailways in which company the M. P. has a financial interest. From Salt Lake City, through schedules are operated to San Francisco and Los Angeles via the Burlington Trailways. A further transcontinental route is provided via the Missouri Pacific between St. Louis and Kansas City and the Santa Fe Trailways between Kansas City and Los Angeles.

The Missouri Pacific operates numerous other connections as well as several important through runs for relatively short distances. For example, between Memphis, Brinkley and Little Rock, 139 miles, more than 5,000 bus route miles are operated monthly by the M. P., with six schedules a day in each direction. Eight schedules a day are also operated in each direction between Kansas City and Leavenworth, 32 miles; and six between Little Rock and Hot Springs, 58 miles, these latter being much used to supplement the branch line train service between those points. Other busy portions of the line are between Russellville, Ark., and Little Rock, 78 miles; between Pine Bluff, Ark., and Little Rock, 44 miles, and between Mission, Texas, and Pharr, 9 miles, each with seven schedules a day in each direction. In all, 80 M. P. buses arrive at and depart from the Little Rock bus terminal daily.

### **Improved Stations**

The M. P. began a campaign for the improvement of its bus terminals some years ago and at St. Louis and Little Rock, in the National Trailways stations, uses two of the finest bus terminals in the country. Both of

these terminals have been described in the Motor Transport Section of the *Railway Age*, and the M. P. was a prime mover in their construction. The bus subsidiary has also followed the policy of identifying the bus lines as a Missouri Pacific service by using the railway passenger stations as bus stations wherever these are centrally located. In some cases, both the railway station and a separate bus terminal are used in the same city to serve different areas. Points where the railway station is used include Algiers, La., Boonville, Mo., Brownsville, Texas, Camden, Ark., Corpus Christi, Texas, Eldon Mo., El Dorado, Ark., Harlingen, Texas, Hot Springs, Ark., Little Rock, Ark., McGehee, Ark., Memphis, Tenn., Mission, Texas, and Palestine, Texas.

The transportation company has always had the policy of keeping its operating costs low by using modern equipment. About the first of this year, for example, 20 new "pusher" buses were placed in service. Of these, 5 will operate between St. Louis and Kansas City, 6 between St. Louis and Little Rock, 5 between Memphis and Hot Springs, and 3 in the Rio Grande valley. These units are the first to be operated by the M. P. T. with motors in the rear, to produce smoother operation and to avoid motor odors in the buses. They seat 31 passengers, have an overall length of 31 ft. 8 in. and an overall width of 96 in., and are equipped with safety glass throughout.

## **New Truck Body**

**T**HE Trailer Company of America has begun the manufacture of a new product, the Highland steel truck body. As a standardized product, the new body is featured by low cost and durable construction. It is designed as a practical, general service body for pick-up and delivery, inter-city haul or inter-department railroad operation.



New Steel Truck Body Manufactured by the Trailer Company of America

# NEWS

## N. Y. Passes Bill for Westchester

State legislature votes for public authority to operate idle Westchester & Boston

The New York state legislature, during its last hectic and closely-packed sessions before adjournment last week, passed the Williamson bill creating a public authority to acquire all or part of the now idle New York, Westchester & Boston and operate it on the basis of an approved plan. It is expected that Governor Lehman will approve the bill.

The public body to be given jurisdiction over the road is to be called the Westchester & Bronx Railroad Authority and, by the terms of the bill, will be "a body corporate and politic constituting a public benefit corporation." Its personnel is to consist of 18 railroad commissioners, nine of whom will be appointed by the president of the borough of the Bronx of the city of New York and nine by the board of supervisors of Westchester county from lists of nominees submitted by councils or town boards of communities located along the Westchester's right-of-way and enumerated in the act. Each commissioner will be appointed for three years, the terms to be staggered. No member of the authority is to receive compensation, and the chairman will be elected by the commissioners themselves.

The bill gives to the Westchester & Bronx Railroad Authority the ordinary powers of a corporate body, including the right to create by-laws, subject to agreement with bondholders; to fix and collect fares and rates, subject to consent and approval of the public service commission; to appoint officers and employees; to issue negotiable bonds and to engage in other activities necessary for carrying out the provisions of the act. The acquisition plan provides that the authority negotiate with the New York, Westchester & Boston Railroad Company, or with any party having the right of sale of the road, with a view to purchase the property and franchise of the company and secure resumption of railroad service along the line. The plan for the new operation must be submitted to the cities and towns enumerated in the act for approval and the authority may, upon approval of the towns operate the road either directly or through a contracting agency.

The text of the bill further explains that no contracts may be entered into by

the Authority and no expenditures be made without the approval of the commission council or town board of each city or town of Westchester county enumerated in the act and the approval of the president of the Borough of the Bronx. The portion of expenses to be borne by each city and town is to be determined through contracts drawn up between communities and the Authority.

The New York, Westchester & Boston, an electric suburban route operating between Harlem River terminal in the Bronx and Westchester communities, and formerly a subsidiary of the New York, New Haven & Hartford, ceased operation on December 31, 1937, after several years of bankruptcy proceedings. Details of abandonment were given in the *Railway Age* of December 25, 1937. There have been held recently discussions concerning the willingness of employees of the road to return to their posts without compensation until a permanent plan of operation be effected, as described in the *Railway Age* of March 5, page 424.

### Maine Central Needs No Motor Act Authority for C. & D.

Citing the Interstate Commerce Commission's finding in Pick-up and Delivery in Official Territory, 218 I. C. C. 441, that a railroad does not require Motor Carrier Act authority to engage in storedoor trucking services, Joint Board No. 133 has recommended that the commission dismiss the application in that connection filed by the Maine Central on February 10, 1936. The board was composed of Frank J. McArdle of Maine, Winslow E. Melvin of New Hampshire and Milo C. Reynolds of Vermont.

### Rules for Motor Transportation of Household Goods

The Interstate Commerce Commission has issued a proposed draft of regulations governing the practices and charges of common carriers by motor vehicle engaged in the transportation of household goods in interstate and foreign commerce. The draft accompanies a notice in Ex Parte No. MC 19, Practices of Motor Common Carriers of Household Goods, which notice suggests that in forthcoming hearings "all interested parties direct their efforts principally toward preparing evidence which will bear specifically upon the reasonableness or unreasonableness of these proposed rules." The notice adds that "It is to be distinctly understood that the level of rates for the transportation of household goods by motor common carriers is not an issue in this investigation."

## \$5,330,621 Gain For Milwaukee

Scandrett says that his road should get this increase on 1937 volume

H. A. Scandrett, co-trustee of the Chicago, Milwaukee, St. Paul & Pacific, told the Interstate Commerce Commission at a resumption of hearings on a reorganization plan for this company on March 21, that the Milwaukee would realize an increase in net income of \$5,330,621 on the basis of 1937 traffic by virtue of the recent rate increases granted. He also explained that this estimate was based on the assumption that the commission would order the same increases for intrastate rates as it had for interstate rates. The net figure of \$5,330,621, Mr. Scandrett said, included an item of \$300,000 for increased terminal and switching charges. Stepping into the role of forecaster for the moment, the witness said that his road expects a 20 per cent reduction in net operating income for March as compared with that month a year ago.

Queried by counsel as to the condition of the plant and equipment, Mr. Scandrett replied that it was "excellent". Turning to some general observations on the railroad situation as a whole, Mr. Scandrett expressed the belief that "consolidation is on the way". "I don't think that it will arrive soon enough to meet the present crisis", he continued, "but I do feel that in the future it will help to solve the railroad problem".

Witness Scandrett also felt that the motor carrier situation has improved since the passage of the Motor Carrier Act. He is still of the opinion that many truck operators are masquerading as contract carriers who could and should be rightly classified as common carriers. The same opinion was also expressed at another hearing the same day when Commissioner Rogers observed from the bench that the Bureau of Motor Carriers was receiving thousands of applications for contract carrier permits, many of which, he believed, should be called common carriers.

As to the future of the railroad industry, Mr. Scandrett does not feel that the industry is "through". Rather, he believes that this present "slough of despond" will not last forever and that the stockholders should have a "run for their money". He reiterated his belief that the present debtor's plan and the plan of the institutional bondholders will not work out. It is still

the position of the debtor that the present proceedings should be continued until earnings recover to a point where a fairer plan can be consummated.

According to the witness, the passage of the Pettengill bill would be very "helpful" to the Milwaukee. Also, he did not feel that "putting the carriers through the wringer" is any cure for the ills that now beset the industry.

Another witness at the hearing was W. W. Wakefield, technical adviser for the preferred and common stockholders protective committees, who gave the commission the results of his recent coordination and consolidation study. Mr. Wakefield estimated that by coordinating and consolidating services of the Milwaukee and the Chicago & North Western, an annual saving of \$3,600,000 could be realized. His figure, he said, would only be the saving on roughly 1,200 miles of the Milwaukee's lines. He also testified that he could see no real reason why the consolidation of the Milwaukee and the Chicago & North Western could not be accomplished. As a result of Mr. Wakefield's study, counsel for the preferred and common stockholders asked the commission for a postponement of the case for at least a year so that they can have the benefits of a consolidation study of the two roads which is now being carried on by the Reconstruction Finance Corporation.

At a continuation of the hearing on March 22, the commission denied the petition to postpone the hearings until the completion of the consolidation studies. At the same time, the common stockholders of the Chicago & North Western have asked the commission to delay the reorganization of that road until the RFC's study is completed.

### Santa Fe Contemplating New Streamlined Train

The Atchison, Topeka & Santa Fe is contemplating the establishment of a streamlined passenger train between Kansas City, Mo., and Oklahoma City, Okla.

### T. and T. Section Cancels Annual Meeting

The Telegraph and Telephone section, Association of American Railroads, has announced cancellation of its annual session, scheduled to be held in St. Louis, Mo., on October 18, 19 and 20, as an economy measure.

### All-Expense Tickets for Golden Gate Exposition

A single ticket, including railway passage, sightseeing trips and hotel accommodations covering visits to the 1939 Golden Gate International Exposition will be sold by the American Railway Express Company through 17,000 railroad agencies next year.

### Motor Rate Investigation

The Interstate Commerce Commission has instituted an investigation (Ex Parte No. MC 20) of rates, charges, classifications, rules, regulations and practices applicable to the transportation of property in interstate or foreign commerce by com-

mon carriers by motor vehicle between specified points in New York, New Jersey, Pennsylvania and Delaware.

### Ontario's Railroad Increases Its Earnings

The Province of Ontario's Temiskaming & Northern Ontario Railway showed a net profit from operations of \$1,369,763.21 for the 1937 fiscal year, Premier Hepburn reported to the Ontario legislature in his budget speech at Toronto last week.

Operation of the railway was described as "eminently satisfactory." Operating profit in the previous fiscal year was \$792,012.49.

### Given Heads Section of New York Welfare Fund

William B. Given, Jr., president, American Brake Shoe & Foundry Co., has accepted the chairmanship of the Industry section of the committee on firms in the campaign of the Greater New York Fund, Inc., to raise \$10,000,000 to supplement the finances of New York City's private health and welfare agencies.

George LeBoutillier, vice-president, Pennsylvania, at New York, has joined the Fund's sponsoring committee.

### Correction

In an article entitled Railroads Mobilize Facts About Railway Buying that appeared in the *Railway Age* of March 5, page 420, the statement was made that the distribution of purchases shown in this article "includes cities and towns supplying heat, light, electric power, water and other services" and communities participating in payrolls and taxes, or towns in which purchases were made by railway employees. These statements are incorrect, for the purchases enumerated were confined to direct purchases, exclusive of services, and were confined to purchases made by the railroads to the exclusion of those made by employees.

### Traffic Club of Washington, D. C.

The Washington Transportation Club has become the Traffic Club of Washington, D. C., as a result of action taken at the March 17 meeting when it was also decided to affiliate with the Associated Traffic Clubs of America. At the same meeting the club awarded its first life memberships to W. W. Bowie, retired Pennsylvania freight agent; Charles H. Bates, attorney for the Union Pacific, and Odell S. Smith, secretary-treasurer of the Norfolk & Washington Steamboat Company. President J. G. Nettleton, general agent of the Pennsylvania, presided at the meeting.

### February Locomotive Shipments

February shipments of railroad locomotives, as reported by the country's principal manufacturing plants to the United States Department of Commerce totaled 16 locomotives as compared with 35 in January and 10 in February 1937. Last month's total included 11 steam locomotives and 5 Diesel-electrics all for domestic service. Unfilled orders at the end of February totaled 159 locomotives includ-

ing 100 steam, 26 electrics and 30 Diesel-electrics for domestic service and 3 steam for export. At the close of February, 1937, there were unfilled orders for 433 locomotives.

### Council Seeks Research Data

The National Research Council, Washington, D. C., has announced its intention to issue a new edition of its bulletin 91, entitled "Industrial Research Laboratories of the United States". On March 25 questionnaires were mailed to the 1,562 concerns included in the last edition and a large number of concerns reported to have established laboratories since that date. It is requested that any railroad and railway supply company which maintains a research laboratory request a questionnaire, if one has not been received, from the National Research Council, 2101 Constitution Avenue, Washington, D. C.

### State Commissions Review Petitions for Intrastate Rate Rise

Several state public service bodies have announced the dates of hearings on petitions of the carriers seeking authority to raise intrastate freight rates to the level granted by the Interstate Commerce Commission's recent decision under Ex Parte 123. The New York Public Service Commission opened a public hearing on March 25 at Albany. The Pennsylvania Public Utility Commission opened hearings on March 21 at Harrisburg. The chairman of the Georgia Public Service Commission has announced that that body will hold hearings on the carriers' petition on April 14, at Atlanta.

The New Jersey Board of Public Utility Commissioners approved this week intrastate rate rises, to become effective on March 28.

### February Revenues 23 Per Cent Under Last Year

Preliminary reports from 91 Class I railroads, representing 83.4 per cent of the total operating revenues, made public last week by the Association of American Railroads, show that those railroads, in February, had estimated operating revenues of \$205,973,953 compared with \$268,408,458 in February, 1937, and \$351,111,482 in the same month of 1930. The February gross was 23.3 per cent below that of February, 1937, and 41.3 per cent below 1930.

Freight revenues of the 91 roads in February amounted to \$162,176,317 compared with \$220,546,305 in February, 1937, and \$271,471,095 in 1930—26.5 per cent below the former and 40.3 per cent below 1930. Passenger revenues at \$25,550,754 were 4.8 per cent below February, 1937's \$26,851,442 and 49 per cent under February, 1930's \$50,124,384.

### Safety Council Letter Asks Tie-in With Safety Men

The National Safety Council, steam railroad group, Chicago, in its monthly news letter for March, has issued a special appeal to railroad operating officers to work more closely with company safety representatives. E. L. Henry, editor, is of the opinion that "inertia on the part

of some operating officers toward safety ideas is the greatest single obstacle in the path of safety happiness." To him, "a classical form of torture for a safety representative would be,—listen to all he has to say, read all he has to write, and then do nothing about it."

The news letter, as usual, contains illustrations of carelessness which causes safety accidents. Special emphasis is given to the safe operation of track motor cars, proper shoes for use on dangerous surfaces and proper storage of gasoline.

### New York Port Authority Makes Jersey Transit Survey

The Port of New York Authority, by request of the New Jersey State Legislature, conducted, on March 23, a survey of those commuters utilizing railroad and ferry facilities between points in northern New Jersey and New York through questionnaire forms distributed by trainmen and ferry employees. Passengers were requested to note the origin of their journeys, street address of New York destination, means by which they cross the Hudson River, and any local fares paid after reaching New York. The Port Authority annual report, summarized in the *Railway Age* for March 19, page 545, pointed out that the Authority has already submitted a report to the Jersey legislature recommending that the task of providing rapid transit utilities be committed to an appropriate public agency.

### Argentine State to Operate Sections of Santa Fe Provincial

Sections of the railway system of the province of Santa Fe, Argentina, will be operated by the Argentine State Railways as a connecting link between its lines in the northern part of Argentina and the Cordoba Central, operation of which it has assumed for a period of four years, as reported in the *Railway Age* of February 26, page 393. The agreement recently concluded between the state railways and the Santa Fe system provides for operation by the state railways of the sections from San Cristobal to Rafaela, San Cristobal to Nelson, and Santa Fe to San Francisco, including the branches from Pilar to Rafaela and Santa Fe to Rosario. The Santa Fe system at present operates 2,135 kilometers (1,324 miles) of one meter gage (3.28 ft.) railway and owns 183 locomotives, 170 passenger-train cars and 5,922 freight cars.

### Pennsylvania Governor Dictates Rate Policy to State Commission

Governor Earle of Pennsylvania sent a statement to be read to the state Public Utility Commission on March 21, instructing them to refuse intrastate rate increases on anthracite, which are included in a petition of carriers within the state to establish intrastate rates on a parity with the new interstate rates provided by the Interstate Commerce Commission's Ex Parte 123 decision. The State Utility Commission opened hearings on March 21 to consider generally the request of the carriers, as noted elsewhere in these columns, while the session to consider the proposed anthracite

increases opened on March 24. One of the questions scheduled for discussion was that of establishing anthracite increases comparable with reductions in intrastate rates between the mines and certain key points which were ordered by the state utility body on February 25 and made effective March 28.

### Atlantic Board Announces Program

The Atlantic States Shippers Advisory Board will hold its 46th regular meeting in the Hotel Abraham Lincoln, Reading, Pa., April 6 and 7. The first day will be devoted to a discussion of plans being adopted by the carriers and shippers and receivers jointly in connection with "Perfect Shipping Month."

In the evening, opportunity will be provided for shipping clerks, freight handlers and other personnel of carriers, shippers and receivers of freight to consider freight handling and billing problems. Speakers will be heard representing the Freight Claim division, Association of American Railroads, the Eastern Claim Conference of the railroads, the Railway Express Agency, steamship lines and prominent shipping firms in board territory.

April 7 will be devoted to a discussion of the trend of business as reflected in carloadings estimated for the second quarter of 1938, status of legislative matters affecting shippers and railroads alike, the sufficiency of railroad service and car supply, progress being made by the carriers in car and motive power construction as applied to shippers needs, demurrage tariff matters, and other subjects of mutual interest.

A luncheon meeting will be held at noon during which Mr. M. J. Gormley, executive assistant to the president, Association of American Railroads, will review the general railroad situation.

### Unions Demand Layoffs Rather Than Short Time in Canada

C. D. Howe, Dominion Minister of Transport, disclosed in Parliament in Ottawa this week that the Canadian National, faced with a reduction of maintenance of equipment work, had planned to care for the situation by reducing working time in its shops from 5 to 4 days a week.

"Much to the surprise of the management, however," he added, "the shop unions have taken the view that they will not accept a shortage of hours and that if there is to be a reduction in shop work it must be at the expense of junior employees who will be thrown out of work."

"Negotiations between the railway management and the shop men are continuing," the Minister said, "the management taking the position strongly that the shopmen should cooperate as they have done in the past and meet the situation, which we hope is only a temporary one, by accomplishing through a reduction in hours rather than by means of a layoff of men."

### Bill for "Postalized" Rail Fares

Representative Lemke of North Dakota has introduced in the House of Representatives a bill (H. R. 9896) to provide

for "postalized" passenger fares on the railroads of the country. This is the idea which has been agitated for some time by John A. Hastings of New York, who made a presentation in the still pending passenger-fare phase of the Ex Parte 123 proceeding.

The Lemke bill would provide for a three-year test of the plan during the period from July 1, 1938, to June 30, 1941. It would require the Interstate Commerce Commission to set up postalized fares of \$1 and \$5 for rides outside commuting zones, except that the commission could preserve present rates which are lower than the proposed postalized rates. A \$500,000,000 "Railroad Postalized Fare Guaranty Corporation" would be set up by the government to indemnify the railroads during the test period.

### Retirement Act Amendments

Bills designed to liberalize the Railroad Retirement Act have been introduced in the Senate by Senators Walsh of Massachusetts and LaFollette of Wisconsin and in the House of Representatives by Representative O'Connell of Montana.

The Walsh and O'Connell bills (S. 3678 and H. R. 9918) are identical and would amend section 2 so as to liberalize the provisions covering annuities to persons disabled. Also, they would eliminate the present requirement that a person applying for a pension must give up any employment he may have (whether or not it be with an employer subject to the act) as a condition to receiving an annuity. The requirement that service with an employer subject to the act be relinquished would remain.

Another amendment proposed by these bills would add to section 2 the following: "An individual who shall not be eligible to a pension under this section or shall have relinquished all rights thereto and on March 1, 1937, was 70 years of age, or over, shall be eligible, subject to other conditions of this Act, to an annuity based upon service prior to the enactment date, without having been an employee on or after the enactment date."

An amendment similar to the latter is also proposed by the LaFollette bill (S. 3686) which would also remove section 3's requirement that a person must have been in an employment relationship on the enactment date in order to have his service prior to January 1, 1937, counted in the calculation of his annuity.

### Pacific Coast "Fans" Plan Trip Through Redwood District

A railroad "fan" trip over the Northwestern Pacific and the California Western through Marin, Sonoma and Mendocino counties, Cal., including a stop at the main terminal of the Caspar, South Fork & Eastern, will be sponsored by the Railway & Locomotive Historical Society, Pacific Coast chapter, on Sunday, April 10. According to the tentative schedule, the party will leave San Francisco, Cal., at 7:15 a.m. and will be routed via the Northwestern Pacific to Willits, where the excursionists will transfer to the California Western for Fort Bragg. From here they will be taken by bus to Caspar where they will have op-

portunity to photograph the motive power of the Caspar, South Fork & Eastern, one of the few roads still using link-and-pin couplers. The special train has been dubbed the "Redwood Special," made up of open-platform equipment, and will be hauled by an old American type locomotive and a "ten-wheeler."

### Florida Commission to Proceed with Hearing on Miami Joint Station

The Florida Railroad Commission has denied a motion of the Florida East Coast to dismiss a petition of the city of Miami, Fla., seeking to compel the F. E. C. and the Seaboard Air Line to construct and maintain adequate joint passenger facilities at Miami. The F. E. C., in its motion, contended that it was necessary to procure a certificate of public necessity and convenience from the Interstate Commerce Commission, inasmuch as Miami's proposal involves both abandonment and new construction of facilities of interstate carriers. The state commission, however, held that it has jurisdiction to proceed at once with hearings and hand down a decision, subject to action by the I. C. C.

The Seaboard contends, in its formal answer, that Miami is a terminus for both roads, that all their passenger traffic ends there, that there is no interchange of traffic between the two carriers and that present facilities are modern and adequate.

### Chile to Grant Funds for Railroad Construction

The government of Chile will furnish grants of 12,200,000 pesos (\$610,000) and loans totaling 36,000,000 pesos (\$1,800,000) for the construction of a line from Freire, a station on the southern section of the state railway system, to Tolten, located near the mouth of the Tolten River, and a line from Crucero, located on the recently completed Coclé-Lake Ranco line, to Lake Puyehue, as authorized by law No. 6182, recently published. For construction costs, 8,000,000 pesos are to be furnished to the Freire-Tolten line and 4,200,000 pesos for the Crucero-Puyehue line, which funds to be disbursed during a three year period 1938 to 1940 inclusive. The grants are to be charged to the national budget, two-thirds of which are to be obtained from an additional tax on property in the zones affected and a surcharge of 20 per cent on the freight and passenger rates over the rates charged by the southern section of the state railways. The loans are to be covered by 7 per cent bonds for which there is provided a cumulative amortization of one per cent per annum.

### Liability Act Amendment

Representative Allen of Pennsylvania has introduced in the House of Representatives a bill (H. R. 9920) which would amend the April 22, 1908 "Act relating to the liability of common carriers by railroad to their employees in certain cases" by adding the following to section 1: "Provided, That in any case where an action has been brought under the laws of any state or territory for workmen's compensation for the injury or death of an employee and the employer has pleaded

as a defense to such action for workmen's compensation the fact that the employee was engaged in interstate commerce at the time of the accident, and the fact that the employer has sought to avoid the payment of workmen's compensation by such plea is proven in any action hereafter brought under this Act or its amendments, in all such cases the employer shall be liable under this Act for the injury or death of such employee in an amount, as a minimum, equivalent to the amount of workmen's compensation provided for under the laws of the state or territory in which the employee was injured or killed."

### Freight Car Loading

Loading of revenue freight for the week ended March 12 totaled 556,664, an increase of 3,748 cars or seven tenths of one per cent above the preceding week, but a decrease of 187,835 cars or 25.2 per cent below the corresponding week in 1937 and a decrease of 317,052 cars or 36.3 per cent below the same week in 1930. All commodity classifications except forest products, ore and live stock showed decreases under the preceding week, while all commodity classifications except grain showed decreases under last year. The summary, as compiled by the Car Service Division, Association of American Railroads, follows:

#### For Week Ended Saturday, March 12

Districts	1938	1937	1936
Eastern .....	121,150	169,549	135,857
Allegheny .....	103,965	157,201	117,862
Pocahontas .....	37,807	56,927	46,880
Southern .....	92,217	119,164	97,179
Northwestern .....	66,129	79,912	74,113
Central Western .....	89,656	107,033	92,653
Southwestern .....	45,740	54,713	52,393
<b>Total Western Districts .....</b>	<b>201,525</b>	<b>241,658</b>	<b>219,159</b>
<b>Total All Roads.</b>	<b>556,664</b>	<b>744,499</b>	<b>616,937</b>
<b>Commodities</b>			
Grain and Grain Products .....	31,429	28,387	35,123
Live Stock .....	10,954	11,487	12,189
Coal .....	105,274	166,486	110,787
Coke .....	5,127	11,844	7,383
Forest Products .....	27,607	38,662	31,299
Ore .....	8,682	10,128	6,842
Merchandise I.C.I.	150,669	169,817	157,799
Miscellaneous .....	216,922	307,688	255,515
March 12 .....	556,664	744,499	616,937
March 5 .....	552,916	730,329	634,570
February 26 .....	511,930	692,393	672,869
February 19 .....	535,790	711,314	586,487
February 12 .....	542,991	688,523	631,095
<b>Cumulative Total,</b>			
10 Weeks .....	5,521,454	6,952,734	6,196,371

*In Canada.*—Car loadings for the week ended March 12 totaled 45,911, being 1,623 under last year and 357 above the preceding week, according to the compilation of the Dominion Bureau of Statistics.

Total for Canada:	Total Cars	Total Cars Rec'd from Connections
March 12, 1938 .....	45,911	23,189
March 5, 1938 .....	45,554	23,068
February 26, 1938 .....	46,322	21,064
March 13, 1937 .....	47,534	28,693

#### Cumulative Totals for Canada:

March 12, 1938 .....	450,945	223,034
March 13, 1937 .....	466,098	276,639
March 7, 1936 .....	412,327	224,498

### Canada's "Agreed Charge" Bill

Commending it as an attempt to stabilize the whole transport industry and wipe out unfair competition and as a step toward "sound coordination" of transporta-

tion systems in Canada Transport Minister C. D. Howe moves forward in the House at Ottawa this week moved second reading of his bill to create the Board of Transport Commissioners and widen the powers of that body so that they might regulate water as well as railway transport.

Opposition leader Bennett predicted difficulties would be encountered when it came to the application of part five of the bill which provides for "agreed charges" (contracts between railroads and a shipper for an agreed period and an agreed rate). He noted that this part of the bill, as well as that dealing to regulation of water rates, would come into operation only after proclamation, and, after reminding the House that already Western boards of trade had expressed concern over this fifth part of the measure, suggested that the government carefully consider their representations before proclaiming these particular provisions.

### Allegheny Board Forecasts 24 Per Cent Decrease for Second Quarter

The Allegheny Regional Shippers Advisory Board has predicted a decrease of 24.8 per cent in estimated carloadings for the second quarter of 1938, as compared with the corresponding quarter of 1937, at its eleventh annual and 37th regular meeting held on March 17 at the Hotel Roosevelt, Pittsburgh, Pa. According to the returns sent by shippers in the board territory, there is expected to be a decrease in carloadings of all commodities except grains and grain products, fresh fruits, livestock, canned goods, and aluminum and enamelware. A 20 per cent decrease is expected in coal and coke, a 50 per cent decrease in iron and steel castings, and a 45 per cent decrease in iron and steel scrap. The greatest increase is expected in fresh fruits, calculated at 150 per cent.

The main speaker of the meeting was A. J. Ball, foreign traffic manager, Pennsylvania, who reviewed the foreign trade situation. It was his belief that as long as Europe is under threat of war, export demands of United States products will continue and that at present "we are in a position to dictate the terms under which we are willing to make sales." L. G. Hultz, traffic manager, United Engine & Foundry Co., was elected president of the board, to succeed Charles Donley.

### Elderly Conductor Writes Prize Essay in Erie Contest

The Erie has announced in its employees' magazine the results of a system-wide essay contest for passenger conductors in service on the subject "How Conductors Can Best Please the Public". It is reported that responses have been received from 50 per cent of the eligible passenger conductors. The judges, R. E. Woodruff, operating vice-president; C. C. Howard, passenger traffic manager, and R. M. America, editor of the Erie Railroad Magazine, have awarded the first prize of \$25 to Conductor Snyder, of the Greenwood Lake division, who, at the age of 78 boasts 62 years of service to the road.

In his prize essay, Conductor Snyder expresses the belief that the conductor,

because of the nature of his work, has the responsibility of building good-will with the public. He stresses especially "the tiny details which make favorable travel," such as care about car temperature, tidiness of the cars, assisting passengers in raising and lowering window shades, and such courtesies as wiping dirt from hand rails. He is of the opinion that "one trades with John the grocer because he is more friendly than Tom, and in railroading it is not an uncommon thing for passengers to go out of their way in making their travel plans so they might ride with Joe Smith on No. 3."

#### Fletcher Testifies Before Senate Committee

Judge R. V. Fletcher, vice-president and general counsel for the Association of American Railroads, appeared before the Senate Finance Committee on March 17 to present the views of the railroads regarding the new tax bill, H. R. 9682. Mr. Fletcher told the committee that the carriers should be exempted from any tax on undistributed profits because of the special conditions affecting the industry, including such matters as the requirement of the Interstate Commerce Commission for the establishment of sinking funds which automatically subjects them to the penalty tax. He also referred the committee to his testimony before the House Ways and Means Committee as well as the testimony of Samuel O. Dunn, editor of *Railway Age*, and Nelson Trottman, general attorney for the Chicago & North Western.

In answer to a question from Senator Harrison, Mr. Fletcher said that he preferred a flat tax rather than the modified form of surtax on undistributed profits as incorporated in the House bill. He also briefly referred to the capital stock tax as contained in the proposed bill, and indicated that the privilege of a new declaration of value should be given to new railroad corporations which have just emerged from bankruptcy.

#### Labor Senator Opposes Merger in Canada

Senator James Murdock, former Minister of Labor and a spokesman for railway labor, vigorously assailed the Beaubien project for merging the Canadian National and Canadian Pacific when debate on the proposal was resumed in the Senate at Ottawa last week. A motion by the Senator Beaubien, (of Montreal) that "the Government should be urged to settle the railway problem" was before the Senate. To this main motion, an amendment has been presented by Senator F. B. Black, (New Brunswick Conservative) that a special committee of 15 Senators, be appointed "to inquire into and report upon the best means of relieving the country from its extremely serious railway condition, and financial burden consequent thereto."

He was in sympathy with any move for the relief of the "forgotten taxpayer" Senator Murdock declared, but Senator Beaubien in arguing for putting into effect the 1923 Senate resolution for joint management, "did not give a concrete demonstration of what the resolution really meant."

The displacement of railway men was one of the most tragic matters the country had faced in years, Senator Murdock said. There were railway men with 26 years' seniority who could not get work. Unification would mean the throwing out of employment of from 15,000 to 17,000 men "for the purpose of sending dividends to shareholders in the United Kingdom and the United States," holders of stock in the C. P. R.

#### Relation Between Track and Rolling Stock

The Engineering Division (A. R. E. A.) and the Mechanical Division of the Association of American Railroads have appointed a joint committee to study the relation between track and rolling stock through a program of investigation and tests relating thereto. The committee is headed by Dr. Arthur N. Talbot, professor emeritus, University of Illinois, Urbana, Ill. Representatives of the A. R. E. A. include J. V. Neubert, chief engineer maintenance of way, N. Y. C., New York; W. J. Burton, assistant to chief engineer, M. P., St. Louis, Mo.; A. N. Reece, chief engineer, K. C. S., Kansas City, Mo.; and Robert Faries, assistant chief engineer, maintenance, Penna., Philadelphia, Pa.

The Mechanical Division has appointed the following: R. H. Kueck, chief mechanical engineer, M. P., St. Louis, Mo.; J. B. Blackburn, mechanical assistant to chief mechanical officer, C. & O., Cleveland, Ohio; J. G. Blunt, chief mechanical engineer, American Locomotive Co., Schenectady, N. Y.; F. A. Isaacson, engineer car construction, A. T. & S. F., Topeka, Kan.; and A. G. Hoppe, assistant mechanical engineer, C. M. St. P. & P., Milwaukee, Wis. W. I. Cantley, mechanical engineer, Mechanical Division, and G. M. Magee, research engineer, Engineering Division,

will participate ex-officio in the activities of the committee.

#### Fuel-Efficiency Record

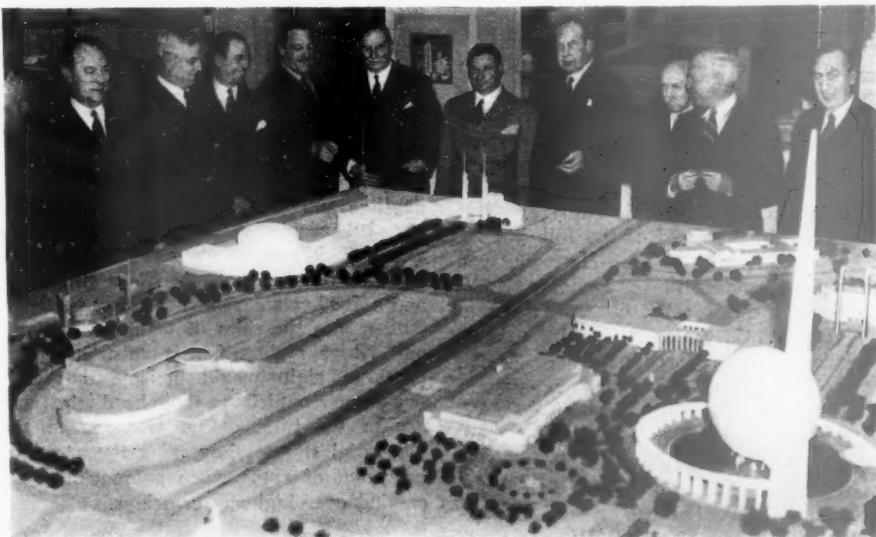
For each pound of coal consumed in freight service, the railroads in 1937 hauled 8% tons of freight and equipment a distance of one mile, J. J. Pelley, president of the Association of American Railroads, said on March 17. This was "the best record in fuel efficiency that has ever been established by the railroads, being an increase of 50 per cent in fuel efficiency compared with 1920," in which year an average of 5 1/4 gross tons was hauled one mile for each pound of coal used. In 1936, the average was 8.37 gross tons, and in 1935, it was 8.31 gross tons.

"Since 1920," Mr. Pelley's statement continued, "there has been an almost constant increase in fuel efficiency, both in freight and passenger service, which has brought about a substantial saving in the fuel bill of the railroads. This has been made possible by a large number of factors, including improvements in the construction of new locomotives, modernization of older locomotives by equipping them with up-to-date improvements to aid combustion, improved methods of operation to keep trains moving with a minimum number of stops, and the continuing progress in scientific methods of chemically treating boiler water in order to eliminate, so far as possible, ingredients harmful to locomotives. There have also been improvements in scientific methods used to determine just which grades of coal are best adapted for locomotives."

#### Club Meetings

The Central Railway Club of Buffalo at its meeting on April 7, to be held at the Statler Hotel, Buffalo, N. Y., will consider the aspects of "Perfect Shipping

\* \* \*



Railroad World's Fair Building Shown in Model Layout

The model building shown in the center of this illustration gives an indication of how the quarter-mile long, S-shaped, exhibit building to be erected by the railroads at the New York World's Fair of 1939 will look when completed. Railroad and other officers are shown looking over the scene. Left to right they are: C. E. Hildren, executive vice-president, L. V.; L. R. Crandall, president, George A. Fuller Co., contractors; L. G. Coleman, director, World's Fair committee of the Eastern Presidents' Conference; D. J. Kerr, president, L. V.; G. A. Whalen, director of World's Fair; J. M. Davis, president, D. L. & W.; D. P. Higgins, of Eggers & Higgins, architects; J. M. Fitzgerald, vice-chairman, committee on public relations, Eastern Presidents' Conference; N. Litchfield, of Gibbs & Hill, engineers; S. F. Voorhees, chairman of the Board of Design, New York World's Fair 1939, and F. W. Leamy, secretary of the Eastern Presidents' Conference.

Month," to be conducted next month under the joint sponsorship of the National Association of Advisory Boards and the Association of American Railroads. T. A. Ward, freight claim agent, New York Central, has been selected chairman of the meeting. T. C. Burwell, who is general chairman of the perfect shipping campaign and vice-president of A. E. Staley Manufacturing Company, Decatur, Ill., and C. H. Dietrich, executive vice-chairman, Freight Claim division, A. A. R., are to be the principal speakers. Others on the program will be H. R. Smith, manager, National Live Stock Loss Prevention Board, Chicago; W. S. Jensen, manager, Railroad Perishable Inspection Agency, New York; Edward Dahill, chief engineer, Freight Container Bureau, A. A. R., New York, and W. C. Barrett, chief of personnel, Lehigh Valley, and president of the club.

The Traffic Club of Rochester, N. Y., will hold a meeting on March 30 at the Rochester Chamber of Commerce. Among the subjects to be discussed will be "Increased Freight Rates Authorized by the I. C. C. in Ex Parte 123", by Thomas M. Shalloe, division freight agent, New York Central, and "Increased Motor Carrier Rates", to be presented by traffic officers of two of the larger highway carriers.

The New England Railroad Club will hold its next meeting on April 12 in the Hotel Touraine, Boston, Mass. C. R. Knowles, superintendent of water service, Illinois Central, will present a paper entitled "Maintenance of Way Work Equipment". An informal dinner will open the meeting at 6:30 p. m.

The Canadian Railway Club will hold its next meeting on April 11 in the Windsor Hotel, Montreal, Que. G. R. Russell, assistant fleet sales manager, Ford Motor Company, Montreal, will present a paper entitled "The Soya Bean in Transportation".

#### Study of Brine Drippings

The Engineering Division (A. R. E. A.) and the Mechanical Division of the Association of American Railroads have appointed a joint committee to study the damage due to brine drippings from refrigerator cars, looking to the development of practices to overcome this damage. This committee is composed of the following.

For the A. R. E. A.—Hermann von Schrenk, consulting timber engineer, N. Y. C. St. Louis, Mo.; W. G. Arn, assistant engineer, I. C., Chicago; L. L. Adams, engineer maintenance of way, L. & N., Louisville, Ky.; C. W. Baldridge, assistant engineer, A. T. & S. F., Chicago; R. W. E. Bowler, engineer maintenance of way, Penna., Buffalo, N. Y.; H. R. Clarke, engineer maintenance of way, C. B. & Q., Chicago; F. W. Hillman, assistant engineer maintenance, C. & N. W., Chicago; T. T. Irving, chief engineer, C. N. R., Toronto, Ont.; C. T. Jackson, assistant to chief engineer, C. M. St. P. & P., Chicago; W. A. Murray, engineer maintenance of way, N. Y. C., New York; A. E. Perlman, engineer maintenance of way, D. & R. G. W., Denver, Colo.; I. H. Schram, engineer maintenance of way, Erie, New York; G.

L. Sitton, chief engineer maintenance of way and structures, Southern, Charlotte, N. C.; C. R. Stratton roadmaster, M. C., Lansing, Mich.; and J. G. Wishart, principal assistant engineer, C. R. I. & P., Chicago.

For the Mechanical Division—W. R. McMunn, superintendent of rolling stock, Merchants Despatch, Inc., Rochester, N. Y.; K. F. Nystrom, mechanical assistant to chief operating officer, C. M. St. P. & P., Milwaukee, Wis.; J. McMullen, superintendent car department, Erie, Cleveland, Ohio; and M. F. Covert, general superintendent equipment, General American Transportation Corp., Chicago.

#### Accidents Decline in Canada

The number of railway accidents investigated by the Dominion Railway Board in 1937 totaled 2,138, involving 2,689 casualties, of which number 340 persons were killed and 2,349 were injured, according to the Board's annual report. This is a reduction from the previous year of 718 casualties, and in view of the railways' increase of 1,873,636 train miles, a larger number of men employed, and more passengers carried than for the previous year, the reduction in casualties indicates a marked improvement. Major train accidents on all railways in Canada dropped from 68 in 1936 to 49 in 1937, showing a reduction of this class of accident of 27.94 per cent from the previous year.

Accidents at highway crossings for the year totaled 286, with 114 killed and 411 injured. Of this number 52 accidents occurred at crossings where there were protective devices, divided as follows:

Protection	Acci-	Killed	Injured
Gates .....	6	1	12
Lightning flash signal ..	1	1	3
Electric bell .....	13	8	21
Bell and wigwag .....	27	11	38
Watchman .....	5	1	10
Total (at protected cross- ings) .....	52	22	84

In addition to the above there were 234 accidents at unprotected crossings, resulting in 92 killed and 327 injured, making a total of 286 accidents, with 114 persons killed and 411 injured. One hundred and sixty-nine of these accidents occurred in daytime and 117 at night. Of this number, 101 accidents with 10 persons killed and 187 injured were caused by motor vehicles running into the sides of trains, and a further analysis shows that of these, 29 ran into the sides of trains in daylight and 72 at night. The number of accidents at night would indicate that auto drivers are outdriving their headlights, and are paying little or no attention to the provincial statutes governing the speed or operation of autos when approaching and passing over highway crossings.

#### Ex Parte 123 Tariffs; Anthracite Shippers Complain

With a few minor exceptions, tariffs covering all the Ex Parte 123 freight rate increases have now been filed with the Interstate Commerce Commission. As pointed out in last week's issue, the great bulk of the new rates will be made effec-

tive on March 28, but the remaining ones will be installed on various dates up to April 15.

The effective dates of the increased rates in Eastern territory are March 28, April 5, April 11 and April 15; Pacific Coast territory, April 8; Southern territory, March 28, with a few on March 30; Southwestern territory, March 28, with a few on March 29; Western Trunk Line and Transcontinental territories, March 28. Because of complications arising from Ex Parte 123's tie-up with the Ex Parte 115 adjustments it was not possible to use the master tariff filed on March 16 for all of the new increases.

On March 23 certain producers of anthracite coal asked the commission to reconsider and clarify its recent decision in Ex Parte 123 insofar as it affects that commodity. The petition contends that "despite the intention of the commission to limit increases in rates on anthracite to a maximum of 10 cents per net ton, your petitioners are informed and believe that the petitioning carriers intend to publish and file many rates on anthracite which in the aggregate will be increased 20 cents per ton above the rates on anthracite now in force."

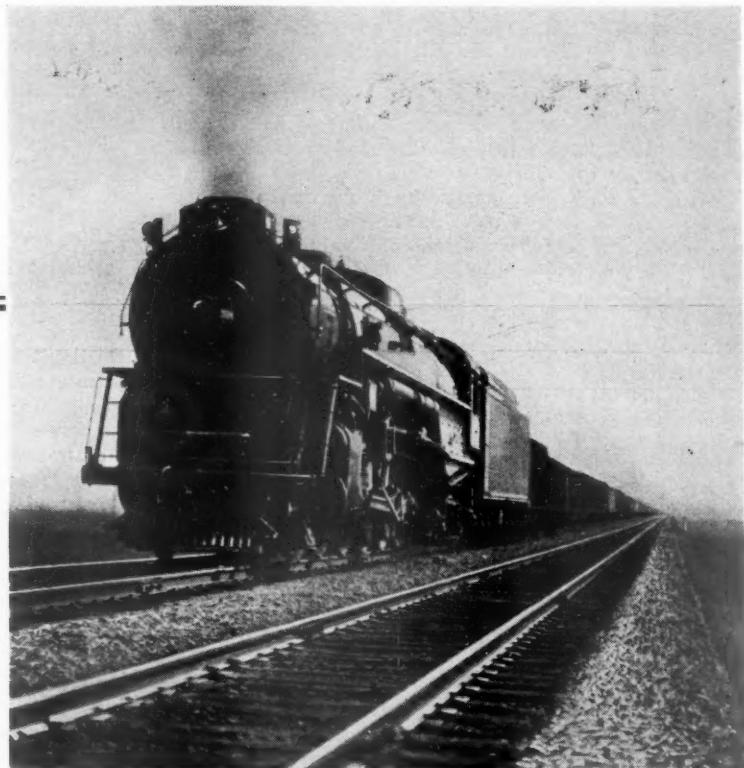
They also allege that the single increases on anthracite, the maximum of 10 cents per net ton, is greater on certain short-haul rates than the increases in rates on bituminous coal which were sanctioned by the commission in Ex Parte 115. The petition closes by asking that the maximum rate on anthracite be fixed at 10 cents; that increases in the rates on anthracite not exceed increases in bituminous approved in Ex Parte 115; and that authority to increase rates on anthracite shall expire on December 31, 1938, the same time that the Ex Parte 115 increases on bituminous expire.

#### Northern Ireland Commission to Investigate Transport Act

The government of northern Ireland has announced its intention to set up a three-man commission to investigate the operation of the state's Road and Railway Transport Act, according to the Railway Gazette. Both the railways and state-owned highway transport of Northern Ireland "have been taking it on the chin" under the pooling scheme and road transport monopoly established by the two-year old Road and Railway Transport Act, if recent criticisms of the act be taken as valid evaluations. According to the report covering the first year of operation of the Northern Ireland Road Transport Board, established under provisions of the Transport bill in 1935, the railways, which expected to receive payments from the road-rail pooling scheme, actually had to contribute £5,850 (\$27,677) during the first year of operation, while substantial deficits were suffered by the board largely through illegal private truck competition.

The Northern Island Road Transport Board was set up in July, 1935, and empowered to take over and operate all contract and common carrier road transport services including those operated by the railways, in Northern Ireland, with the exception of certain purely local opera-

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tions, the private truck services of industrial and commercial firms and some agricultural carriers. Under the act the transport board and the railways were to pool all revenues from both highway and railroad operations, and set up an agreed scheme of distribution of the joint fund.

It appears from news accounts in the *Railway Gazette* and other British journals that operation of the board and its co-ordination work has not been satisfactory thus far. As reported above, the railways, which had hoped to receive disbursements from the pooled railroad and highway transport revenues, received only a bill for about \$27,000. The road transport operations of the board for the first two years showed a deficit of nearly £200,000 (\$92,000).

The report of the board chairman, D. L. Clarke, disclosed that merchants and manufacturers who formerly made use of the common and contract carriers have purchased private truck fleets for the haulage of their goods. This competition has thus taken away from the state's highway "monopoly" a considerable volume of traffic which was formerly enjoyed by the absorbed private companies "and in respect of which consideration had been paid by the board."

Furthermore, many of the former operators of fleets acquired by the board continued to haul goods and passengers illegitimately "under different subterfuges."

#### C. N. J. Engine Crew Die in Collision With Gasoline Truck

An engineman and fireman were fatally burned by waves of burning fuel when passenger train No. 3308 of the Central of New Jersey, bound from Pt. Pleasant, N. J., to Jersey City, crashed into a gasoline tank motor truck at a grade crossing over the road's seashore line at Sewaren, N. J., on March 21. According to testimony given by the local police, the gatekeeper at the crossing, which is protected by both gates and flashing light signals, rendered contradictory accounts of his activities, declaring, in one version, that the gates "stuck" on approach of the train and failed to operate, and, in the other, that he was occupied at some distance from his post and failed to lower the gates in time. The gasoline truck, it is reported, made a stop at the crossing, according to legal requirements, but failed to obey the warning of the flashing signals which operated at the time.

#### All-Commodity Rates—Chicago and St. Louis to Birmingham

The Interstate Commerce Commission, Division 3, has found justified proposed all-commodity rates on merchandise in car-loads from Chicago and St. Louis, Mo., to Birmingham, Ala. The decision in I. & S. No. 4315 and Fourth Section Application No. 16778 thus rejects Examiner George Esch's proposed report which recommended an order requiring the cancellation of the suspended schedules.

The tariffs involved were filed by the Illinois Central, the St. Louis-San Francisco, the Chicago & Eastern Illinois, the Wabash, and the Alton; they publish all-commodity rates between the above-men-

tioned points of 72 per cent of the Southern first-class scale, subject to a minimum weight of 12,000 lb.; 57 per cent of first class, minimum 25,000 lb.; and 44 per cent of first class, minimum 40,000 lb. Protests came from the Birmingham Traffic Association, the Cincinnati Chamber of Commerce, the Southern Motor Carriers' Rate Conference, and "most of the carriers which operate in the Southeastern region."

The commission, after reviewing the evidence offered by the various parties reached the conclusion that "The all-freight commodity rate adjustment here proposed is merely an extension to Birmingham of a basis of rates which, as heretofore explained, is identical with the basis which has been in effect since 1932 from Chicago and St. Louis to destinations on the lines of respondent Illinois Central in the Mississippi Valley territory and in the Southwest, and is substantially the same as the basis which applies quite generally in official, western trunk line, and southwestern territories. The record is persuasive that identical or similar bases to that here proposed have been helpful to the carriers in other territories where established, not only in holding merchandise traffic to their lines, but in regaining a fair portion of that traffic which had been lost, due chiefly to motor-truck competition. In a number of instances in recent years the Commission has had occasion to comment upon the existence of a formidable and increasing form of competition with railroad transportation, and the need of changes in methods of operation, manner of service, and price policies, of the rail carriers to meet the changed conditions. It has pointed out that it is evident that a rate structure which was well adapted to the conditions of 15 or 20 years ago is not necessarily well adapted to the conditions which prevail today, and that this was true of railroad service and operating methods. \* \* \* \* As heretofore stated, the suspended rates would produce reasonably compensatory earnings, and there is no proof that, except as to the fourth-section feature hereinafter referred to and in which the relief sought is granted, the suspended rates would violate any provision of the Interstate Commerce Act."

Examiner Esch's proposed report, as noted in the *Railway Age* of September 11, 1937, found that forwarding companies would be the chief beneficiaries of the proposal; and it answered the contention that all-commodity rates "are in the line of progress" with the assertion that in the present case such rates "would be thrust into the heart of a territory served by carriers and business interests hostile to the all-commodity plan of rate-making."

#### P. R. R. Honors Brakeman for Valor

Fay E. Wheeler, a passenger brakeman of the Pennsylvania, received from the board of directors on March 23 the highest honor which the railroad can accord to an employee in recognition of valor. Brakeman Wheeler saved an elderly man from death beneath the wheels of an oncoming train by rushing across the tracks from the opposite side and dragging the man from its path. For this action the board conferred upon him the Pennsyl-

vania's "Medal for Heroic Service." The presentation was made by President M. W. Clement, while R. C. Morse, vice-president, Eastern region, read the citation.

#### International Management Congress to Meet in Washington

Discussions of management problems and government-business relations will feature the agenda of the sessions of the seventh International Management Congress, to open in Washington, D. C., on September 19. Program items are to be of two types,—addresses by invited speakers, and free discussions on specific problems, in which it is expected that the "utmost freedom will prevail" and everyone will be urged to "speak right out in meetin'." Among the scheduled speakers will be Ralph E. Flanders, president of the Jones & Lamson Machine Company and past president of the American Society of Mechanical Engineers, who will speak on "The Balancing of Incentive and Security."

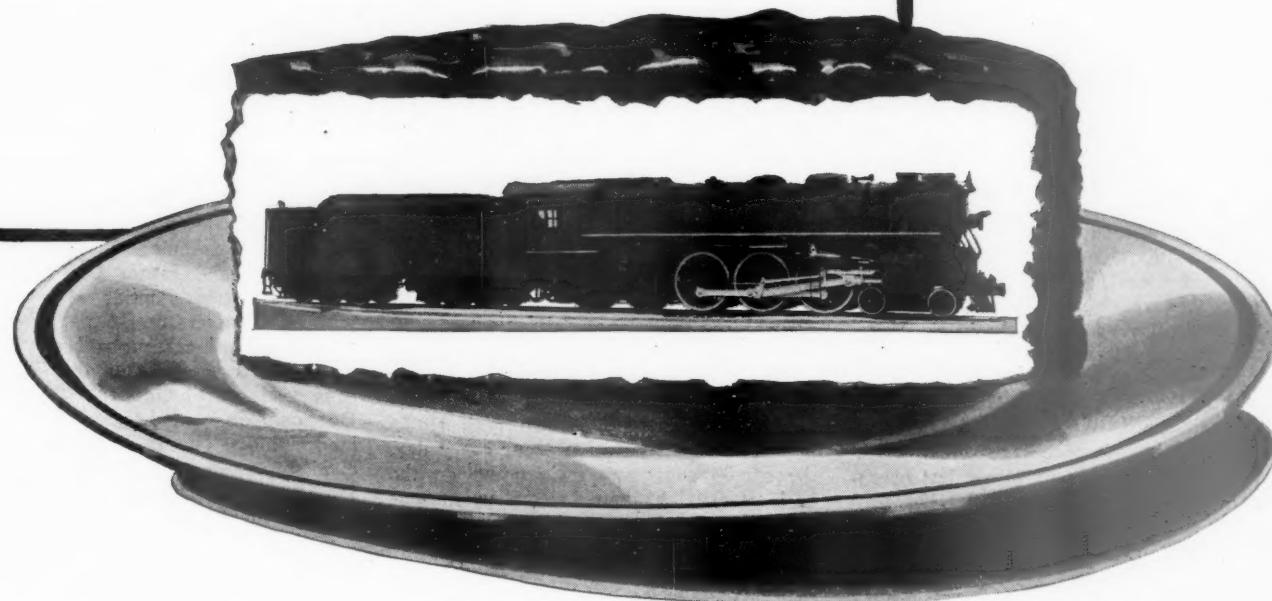
For free discussion from the floors, to which railroad officers are invited, the following topics have been scheduled: "Control of Business Through an Integrated Corporate Budget," "Fundamentals of a Public Relations Program for Business," "Decentralizing the Operating Organization," "Executive Compensation and Advancement in the Business World," "Administrative and Financial Controls for Public Bodies," "Organization Problems Connected With the Administration of Social Security in America," "Maintaining a Responsive Office Staff," "Constructive Purchasing Policies," "Insurable Industrial Hazards," "Accident Prevention in American Industry," and "Principles of Wage and Salary Determination."

#### Richmond Greyhound Can't Buy Peninsula Transit Corporation

The Interstate Commerce Commission, Division 5, has denied the application of the Richmond Greyhound Lines, affiliate of the Richmond, Fredericksburg & Potomac, to acquire control of the Peninsula Transit Corporation through purchase of capital stock for \$320,000. Peninsula operates generally between Norfolk, Va., Portsmouth, Suffolk, Old Point Comfort, Irvington and Readville, on the South, and Washington, D. C., and Baltimore, Md., on the north; also, between Williamsburg, Va., and Jamestown and Yorktown; between Washington and Leonardtown, Md.; and between Washington and Annapolis, Md.

The report says that operations of Richmond Greyhound and Peninsula are competitive between Washington and Richmond, Washington and Petersburg, and Washington and Norfolk, "although the applicant carries through traffic principally and the operations are not entirely over the same highways." The commission's denial of the application turned on its interpretation of the Motor Carrier Act's section 213 which requires that when railroads are involved in acquisitions of motor carriers there must be a showing that the proposed transaction will enable "such carrier other than a motor carrier to use

# You *Can* have your cake and eat it

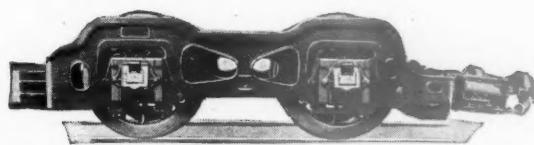


Rapidly increasing train speeds have resulted in larger boilers and greater total locomotive weight.

But every added pound on drivers punishes the track structure and increases maintenance of the locomotive and track.

Money can be saved by designing for lighter axle loads and using the Locomo-

tive Booster to restore the starting and accelerating power, making it equal to or greater than the heavier, costlier, and more destructive design.



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service by motor vehicle to public advantage in its operations and will not unduly restrain competition."

For purposes of the decision the commission assumed, "although we do not so find," that the R. F. & P.'s 49 per cent interest in Richmond Greyhound does not give the railroad control or power to exercise control. It went on to point out, however, that section 213 "is not alone concerned with control, but also with management in a common interest." After brief discussion of the latter the commission continues:

"By reason of stock ownership, contractual obligations existing between the corporation and the railroad, participation in management through applicant's officers and board of directors, and applicant's organization and manner of operation, we find that the acquisition in question would result in such management in a common interest, so far as the railroad is concerned, as to bring the transaction within the terms of the section 213(a) (1) proviso. Applicant confined its testimony to an attempt to show that the transaction would be consistent with the public interest. Hence the record fails to indicate how the acquisition would promote the public interest by enabling the railroad to use Peninsula's service by motor vehicle to public advantage in its operations. Moreover, in view of the statutory requirement that we find, when the proviso is applicable, that competition will not be unduly restrained, the contention that approval of the proposed transaction would result in a monopoly of motor bus operation in the territory, and deprive contestants of interchange traffic, has increased significance."

#### Public Hearings Closed on New Haven Curtailment Petition

Public hearings were concluded on March 18 concerning the proposed abandonment by the New York, New Haven & Hartford of passenger service on several sections of its lines, the closing of 88 stations and the reduction of train miles by a half million a year in the suburban area surrounding Boston, Mass. The attorney general's office of Massachusetts will cross-examine railroad witnesses on March 28 and 30. The trustees of the New York, New Haven & Hartford have filed with the Massachusetts Public Utility department a comprehensive plan for such curtailment of passenger service on the lines of the Old Colony, a lessor road. Preliminary data were summarized in the *Railway Age* for October 2, 1937, page 470. Both the parent and subsidiary roads are in process of reorganization in the federal courts.

According to a memorandum submitted on January 15, the New Haven seeks the abandonment of 88 passenger stations in the Boston territory, petitions for which were filed with the Massachusetts Public Utility body on December 28. Curtailment plans further provide for reduction in the number of passenger trains operated and rearrangement of schedules, and complete abandonment of passenger service on certain sections, including those between Yarmouth and Provincetown, located in

the Cape Cod resort area; between Norwood and North Attleboro; and between Needham Junction and Franklin.

The railroad presents as its reasons for discontinuance of the stations, excessively light patronage, over-abundance and proximity of the stations in the commuting area and the expectancy that schedules will be speeded up by elimination of the less important station stops. Justification for complete abandonment of passenger service on other lines is based on operating losses. In the curtailment of the number of passenger trains, those runs will be discontinued which earned revenues less than out-of-pocket expenses.

According to the memorandum, reductions in train service will make it possible to eliminate the second track on certain sections of the railroads and bring savings in maintenance expenses, taxes and cost of protection at grade crossings. All in all, the savings from abandonment and curtailment of service are expected to result in total savings of approximately \$1,000,000 a year, which, it is expressed, "will do much to make possible the continued operation of those parts of the Old Colony which serve a useful purpose."

Included in the text of the memorandum is a discussion of employee problems in the operation of steam trains in the suburban areas. The question is raised whether it is possible for a steam railroad profitably to provide adequate transportation service on runs of 25 miles or less. The fact is brought out that, while two peak traffic periods of short duration occur every day, the carrier must pay train crews on the basis of an eight-hour day and union contracts prevent lay-offs of more than two hours per day. Thus only about two-thirds of the mileage paid for by the railroad is actually worked by the train crews. The conclusion is drawn that such suburban runs must therefore be covered by rapid transit services which are not burdened with such restrictions.

The Boston territory traffic while it is large in point of view of volume of traffic, is short on revenue, according to the road's memorandum. Approximately 11,625,000 passengers are carried annually by these suburban trains, or 31 per cent of the total passengers carried on the system. For their haulage is required more than 40 per cent of all passenger route trackage operated by the road. This 31 per cent of passengers carried on the 40 per cent of tracks produces in revenue only 14 per cent of the New Haven's total passenger receipts. The average passenger revenue per train mile in the Boston territory is placed at \$1.40, while for the entire system it is \$2.80 and for the system excluding the Boston territory it is \$3.20.

In answer to criticisms that motive power used in passenger service is larger in size than required, the memorandum points out that it is the *peak* service in commuting areas that determines the size of the locomotive and the number of train crews. No equipment has yet been developed which would take care of peak requirements of trains of nine and ten cars and at the same time, operate with greater efficiency than present equipment during the slack hours.

## Supply Trade

The W. B. Young Supply Company, Kansas City, Mo., has been appointed jobber for the tubular products of the Republic Steel Corporation, Cleveland, Ohio.

The T-Z Railway Equipment Company, Chicago, has been appointed national sales representative for the distribution of railway specialties manufactured by the Motor Wheel Corporation, Lansing, Mich.

Earl E. Bates, Assistant general manager of sales of A. M. Castle & Co., Chicago, has been appointed general manager of sales; Harry Christensen, manager of special products division, has been appointed assistant general manager of sales and Oscar F. Olsen, has been appointed manager of railroad sales, in addition to his traffic duties.

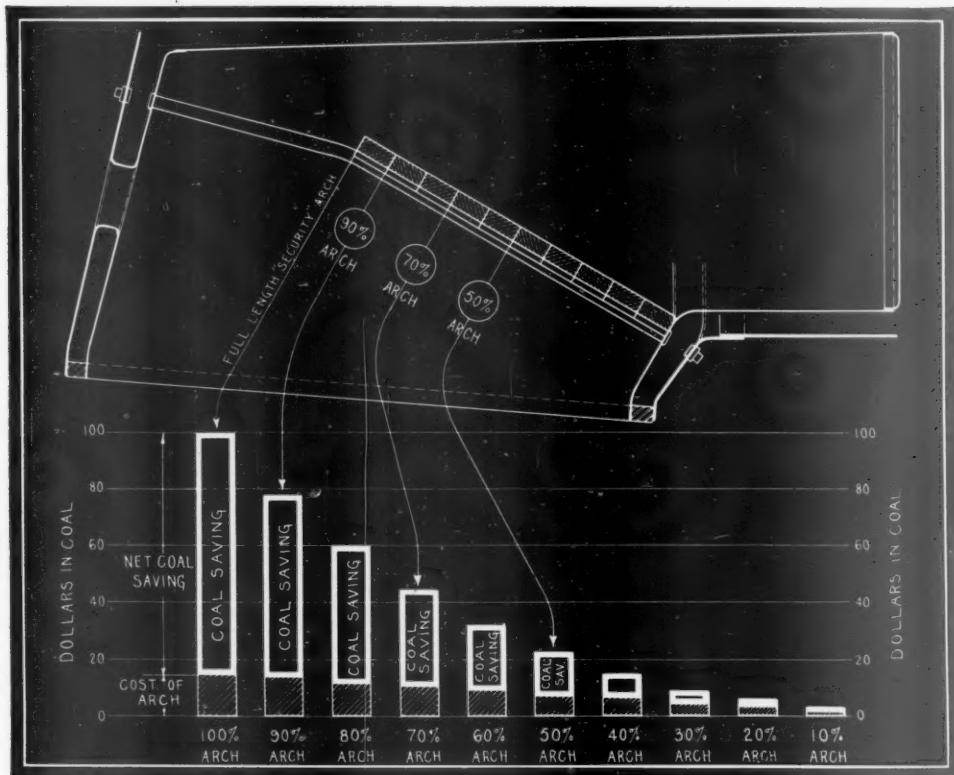
George T. Mahaney of the staff of the general sales manager of the Chevrolet Motor division of the General Motors Corporation and James D. Platt, district manager of the Pontiac Motor division, with headquarters at Seattle, Wash., have been appointed eastern and western sales managers, respectively, of the Diesel Engine division of General Motors Sales Corporation, with headquarters in Cleveland, Ohio. The two territories will be divided roughly by a line extending from Mobile, Ala., northward through Chicago and Milwaukee, Wis.

#### American Locomotive Company Annual Report

The American Locomotive Company reported for the year ended December 31, 1937, consolidated net profit of \$6,113,218, after depreciation, taxes and all other charges, as compared with a 1936 net of \$1,156,658. The company paid a dividend of \$7 per share on December 20 on account of accumulated preferred dividends, which payment was equivalent to a year's accumulation, leaving at the close of the year an arrearage of \$26.75 per share. It is stated that "liquidation of this arrearage is dependent upon the favorable development of the now uncertain business conditions."

Orders for all divisions of the company, it is reported, were received in substantial volume during the closing months of 1936 and the first half of 1937. But during the last half of 1937 there was a marked reduction in the volume of orders in all products except oil refining equipment. Unfilled orders as of December 31, 1937, totaled approximately \$10,500,000, as compared with approximately \$21,400,000 on December 31, 1936.

In regard to railroad purchases, W. C. Dickerman, president, declared that, at time of writing, railroad buying represents only "necessitous" purchases and expresses the opinion that future buying is dependent upon improved business conditions. He states further that the sales of Diesel-electric locomotives have broadened and it



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Regardless of the amount of traffic handled, the locomotive Arch saves enough fuel to pay for itself ten times over.

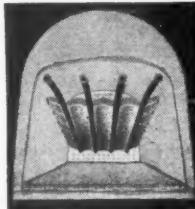
Be sure that every locomotive leaving the roundhouse has its Arch complete with not a single brick nor a single course missing.

In this way, you will get more work for each dollar of fuel expense. Skimping on Arch Brick results in a net loss to the railroad.

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is his expectation that this expansion will continue.

It is reported that contracts have been entered into for the demolition of buildings no longer needed at the Dunkirk and Richmond locomotive plants, most of the equipment of which has been transferred as outlined in previous reports.

The consolidated statement of profit and loss for the year is shown in the accompanying table:

CONSOLIDATED STATEMENT OF PROFIT AND LOSS FOR THE YEAR ENDED DECEMBER 31, 1937		
Gross sales, less discounts and allowances .....	.....	\$50,447,450
Cost of goods sold, including administrative, selling, and general expense .....	\$43,040,851	.....
Depreciation and amortization .....	676,004	.....
		43,716,855
Profit from operations .....	\$6,730,595	
Other income:		
Dividends .....	\$568,522	.....
Interest .....	179,190	.....
Royalties .....	22,179	.....
Profit on sale of securities based upon January 1, 1937, valuation of lower of cost or market .....	151,805	.....
Miscellaneous (net) .....	46,112	.....
	967,808	
Other charges:		
Idle plant expense .....	\$125,399	.....
Interest paid .....	65,961	.....
Loss on retirement of plant assets .....	90,825	.....
	282,185	
Provision for income taxes, etc.:		
Normal Federal and Foreign income taxes .....	\$594,363	.....
Surplus on undistributed profits .....	8,637	.....
Contingencies relative to operating results of current year .....	700,000	.....
	1,303,000	
Net profit for the year, carried to attached statement of surplus .....	\$6,113,218	

**John S. Lemley**, vice-president and a director of the **T-Z Railway Equipment Company**, Chicago, and the **Morris B. Brewster Company**, Chicago, with headquarters at St. Louis, Mo., has resigned following the sale of his interest in both companies and will engage in the sale of railway supplies at St. Louis. He entered the railway supply business in 1915 in association with George F. Cotter of Houston, Tex. In 1920 he became associated with the Charles R. Long Paint Company, Louisville, Ky., and the Viloco Railway Equipment Company and the Okadee Company, of Chicago. Following the sale of his interest in these companies he purchased an interest in the T-Z Railway Equipment Company and the Morris B. Brewster Company on January 1, 1930. Mr. Lemley is a co-inventor of several products used by railroads.

**J. A. Amos**, vice-president of the **Pyle-National Company**, Chicago, has been elected president to succeed **William Miller**, who has been elected chairman of the board. Mr. Amos has been with the Pyle-National Company since 1926, when he entered its employ as vice-president. Prior to that time he was associated with various companies until 1918, when he established

the Oliver Electric Appliance Company, at St. Louis. In 1924 this company was sold to the Pyle-National Company and



J. A. Amos

was operated as an independent business until 1926, when it was merged with Pyle-National and Mr. Amos was elected vice-president.

Mr. Miller's experience embraces several years of railroad service prior to 1908, when he became vice-president of the Adreon Manufacturing Company. Three years later he was elected president of the Monarch Pneumatic Tool Company and vice-president of the Standard Railway Equipment Company, from which position he resigned in 1913 to become vice-president of the Pyle-National Company. In 1914 he was elected senior vice-president and



William Miller

on August 2, 1934, was elected president, which position he has held until his recent appointment.

**Ellery R. Fitch**, research engineer of the **Westinghouse Air Brake Company**, Wilmerding, Pa., has been appointed chief engineer of the **Bendix-Westinghouse Automotive Air Brake Company**, Pittsburgh, Pa. **S. Johnson, Jr.**, formerly chief engineer, having assumed the duties of general engineer. Mr. Fitch was born at Elmira, N. Y., and studied engineering at Syracuse University, receiving the degree of mechanical engineer in 1912. The same year, he entered the service of the Westinghouse Air Brake Company and was engaged in research, development and testing operations in connection with air

brakes and air-controlled devices, serving first as special apprentice and then as tester at the Wilmerding plant. He was later assigned to the St. Louis office as field inspector. Upon the entry of the United States in the World War, Mr. Fitch, having previously received a commission as ensign in the Naval Militia, went to the Great Lakes Training station, where he served as brigade quartermaster. He subsequently served in the Philadelphia Navy Yard and later at the Ship Repair Division of the Navy Department at Washington, and during this time, had been advanced to the rank of lieutenant. After his discharge from the Navy, Mr. Fitch returned to St. Louis, remaining there until



Ellery R. Fitch

1926; the Westinghouse Air Brake Company then recalled him to New York as district engineer. When the American Railway Association, now the Association of American Railroads was conducting a series of tests in conjunction with the Interstate Commerce Commission changed its operating specifications, Mr. Fitch returned to Wilmerding as research engineer in the development of a new freight brake standard equipment for interchange service.

## Equipment and Supplies

### PASSENGER CARS

THE NEW YORK RAPID TRANSIT COMPANY contemplates the purchase of a three-car passenger train for service on its lines.

### FREIGHT CARS

THE BRITISH AMERICAN OIL COMPANY, LTD., has ordered five tank cars from the Canadian Car & Foundry Co., and 24 tank cars from the National Steel Car Corporation.

THE UNITED STATES NAVY DEPARTMENT, BUREAU OF SUPPLIES AND ACCOUNTS, Washington, D. C., has asked for bids on April 5, for one steel-sheathed box car of 50 tons' capacity, two tank cars of 8,000 gal. capacity and three steel underframe

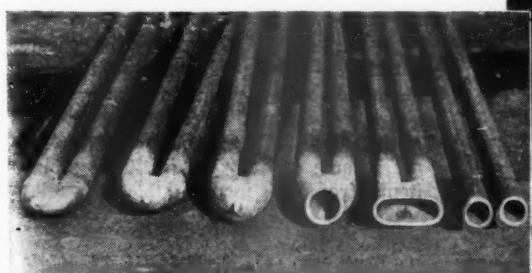
# Let Experience Be Your Guide

Pilots know channels and protect ships from unseen obstructions.

Elesco knows locomotive superheaters and their operating conditions. For many years Elesco has been manufacturing new superheater units and REmanufacturing wornout superheater units; many methods of manufacture and REmanufacture have been tried—and all but machine-die-forging have been discarded as unreliable.

Be guided by Elesco's experience when your superheater units live their full mileage life—and let Elesco DEPENDABLY REmanufacture them. The cost is negligible on a mileage basis.

Steps in the manufacturing process of the return bend—Right to left: Two tubes to be forged together, breeches piece, preliminary swagging, final closing, flattening and finishing.



## THE SUPERHEATER COMPANY



A-1216

Representative of AMERICAN THROTTLE COMPANY, INC.

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Canada: THE SUPERHEATER COMPANY, LTD., MONTREAL

Superheaters • Exhaust Steam Injectors • Feed Water Heaters • American Throttles • Pyrometers • Steam Dryers

flat cars of 50 tons' capacity. The Navy Department recently placed orders for five flat cars and one twin hopper car, all of 50 tons' capacity, with the American Car & Foundry Co., and one flat car of 100 tons' capacity with the Haffner-Thrall Car Company.

### IRON AND STEEL

THE CHICAGO GREAT WESTERN has ordered 4,175 tons of rails, placing 3,060 tons with the Carnegie-Illinois Steel Corporation and 1,115 tons with the Inland Steel Company. The road also placed orders for 3,040 tons of track accessories.

THE NEW YORK, NEW HAVEN & HARTFORD has placed orders for 7,500 tons of 131-lb. rail and accessories, permission having been granted by the court to make these purchases as was reported in the *Railway Age* of February 19, page 359.

### SIGNALING

THE TEMISKAMING & NORTHERN ONTARIO has placed an order with the Union Switch & Signal Co. covering the materials required for an automatic interlocking plant to be installed at Rouyn, Quebec, where its Nipissing central line crosses the Canadian National. The order includes the necessary color light signals, direct current relays, copper oxide rectifiers, etc.

## Construction

CALIFORNIA & OREGON COAST.—*Gold Coast*.—Examiner R. R. Molster of the Interstate Commerce Commission, in a proposed report to the Commission, has recommended that if the certificate issued to the Gold Coast Railroad has not sooner expired, (1) that division 4 rescind the previous finding in finance docket No. 10710 and now find that the present and future public convenience and necessity are not shown to require construction by the Gold Coast of the line of railroad in Josephine and Curry Counties, Oreg., proposed in the application recorded in finance docket 10710; and, in any event, (2) find that the present and future public convenience and necessity are not shown to require extension of the California & Oregon Coast in Josephine County, Oreg., and Del Norte County, Calif., by the City of Grants Pass and the Crescent City Harbor District as proposed in the application recorded in finance docket No. 11296.

AN EXPOSITION devoted to transportation and public works is being held during March in Rio de Janeiro, Brazil, to commemorate the 30th anniversary of the founding of the Ministry of Transportation and Public Works, according to consular reports. Industrial and technical sections of the display have been set up to deal with all forms of transportation and include historic data, illustrative machinery and models of future developments.

## Financial

ATLANTIC COAST LINE.—*Bonds*.—The Interstate Commerce Commission Division 4, has granted authority to this company to procure the authentication and delivery of \$1,406,000 of general unified mortgage 50 year series A 4½ per cent gold bonds to reimburse the treasury for expenditures made in retiring a like amount of first mortgage four per cent bonds of the Brunswick & Western.

BALTIMORE & OHIO.—*Abandonment*.—This company has applied to the Interstate Commerce Commission for authority to abandon the operation, and the Quemahoning branch has applied for authority to abandon, the line extending from valuation station 1100 plus 00 near Ralston, Pa., to valuation station 1528 plus 90 in Somerset County, Pa., 8.1 miles.

BANGOR & AROOSTOOK.—*Equipment Trust Certificates*.—This company has applied to the Interstate Commerce Commission for authority to assume liability for \$1,500,000 of 2.5 per cent equipment trust certificates, series L. It is proposed to sell the certificates under competitive bidding.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—*Reorganization*.—E. Stanley Glines, Martin H. Fry, and C. Oliver Wellington, all of New York; W. Rodman Peabody, of Boston, Mass., and R. Harland Shaw, of Chicago, have applied to the Interstate Commerce Commission for authority to act as a protective committee for holders of this road's 50-year five per cent mortgage gold bonds, series A, due February 1, 1975.

DETROIT & MACKINAC.—*Annual Report*.—The annual report of this company for the year ending December 31, 1937, shows net deficit, after interest and other charges, of \$14,249, as compared with net income of \$12,016 in 1936. Selected items from the income account follows:

	1937	1936	Increase or Decrease
RAILWAY OPERATING REVENUES	\$885,445	\$803,484	\$81,961
Maintenance of way	143,950	126,113	17,836
Maintenance of equipment	184,640	140,203	44,436
Transportation—Rail	313,698	286,450	27,248
TOTAL OPERATING EXPENSES	694,643	605,305	89,338
Operating ratio	78.45	75.34	-3.11
NET REVENUE FROM OPERATIONS	190,801	198,178	-7,377
Railway tax accruals	35,134	21,118	14,016
Railway operating income	155,666	177,060	-21,393
Equipment rents—Dr. Joint facility rents—Dr.	62,899	45,009	-17,890
	1,325	1,308	-16
TOTAL INCOME	94,545	133,384	-38,838
Interest on funded debt	95,546	109,360	-13,813
NET INCOME	*\$14,249	\$12,016	-\$26,266

\* Deficit.

CHICAGO, ROCK ISLAND & PACIFIC.—*Abandonment*.—Examiner W. J. Schutrum pf the Interstate Commerce Commission, in a proposed report to the com-

mission, has recommended that it authorize the trustees to abandon two disconnected lines of railroad, namely, from Muscatine, Iowa, westerly to Nichols, 14.5 miles, and from Lone Tree, Iowa, westerly to Iowa Junction, 5.3 miles.

DELAWARE, LACKAWANNA & WESTERN.—*Note*.—The Interstate Commerce Commission, Division 4, has authorized the Syracuse, Binghamton & New York to issue a promissory note for \$1,462,516, to be delivered at par to this company to evidence a like amount of indebtedness for advances from it for additions and betterments. The commission has also authorized this company to assume liability, as endorser, for the note and to pledge and repledge it from time to time to and including June 30, 1940, as collateral security for its short-term note in the face amount of \$1,000,000.

LEHIGH & NEW ENGLAND.—*Annual Report*.—The 1937 annual report of this company shows net income, after interest and other charges, of \$382,943, as compared with net income of \$397,860 in 1936. Selected items from the income statement follow:

	1937	1936	Increase or Decrease
RAILWAY OPERATING REVENUES	\$3,689,201	\$3,962,590	-\$273,389
Maintenance of way	380,225	419,244	-39,019
Maintenance of equipment	839,711	864,109	-24,397
Transportation	1,349,838	1,393,171	-43,334
TOTAL OPERATING EXPENSES	2,835,402	2,933,614	-98,212
Operating ratio	76.86	74.03	2.83
NET REVENUE FROM OPERATIONS	853,799	1,028,977	-175,178
Railway tax accruals*	162,241	227,031	-64,791
Railway operating income	691,558	801,945	-110,386
Net Rents—Cr.	62,678	5,367	57,310

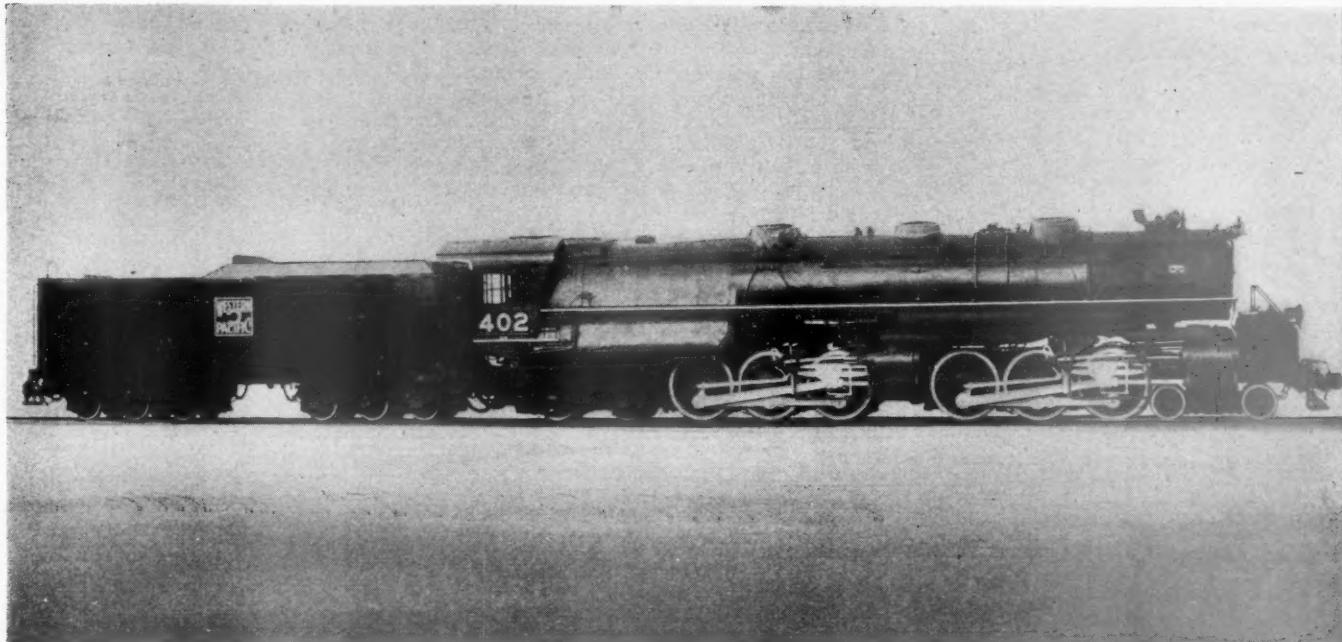
	1937	1936	Increase or Decrease
NET RAILWAY OPERATING INCOME	754,237	807,313	-53,076
Non-operating income	31,826	26,843	4,982
TOTAL INCOME	786,063	834,156	-48,093
Interest on funded debt	372,786	390,489	-17,702
TOTAL FIXED CHARGES	378,095	397,462	-19,367
NET INCOME	\$382,943	\$397,860	-\$14,916

\* Including Company's estimate of Federal taxes.

INTERNATIONAL RAILWAYS OF CENTRAL AMERICA.—*Annual Report*.—The annual report of this system for the year 1937 shows net income, after interest and other charges, of \$1,102,428, as compared with net income of \$630,293 in 1936. Selected items from the income statement follow:

	1937	1936*	Increase or Decrease
RAILWAY OPERATING REVENUES	\$5,699,442	\$4,951,572	+\$747,869
Maintenance of way	922,138	821,796	+50,342
Maintenance of equipment	676,395	644,874	+31,521
Transportation	1,013,161	943,064	+70,096
TOTAL OPERATING EXPENSES	3,230,907	2,959,260	+271,647
Operating ratio	56.69	60.77	-4.08
NET REVENUE FROM OPERATIONS	2,468,535	1,992,312	+476,223
Railway tax accruals	139,781	24,496	+115,285

Continued on next left-hand page



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**WESTERN PACIFIC**

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99,600 pounds Tractive Power

**SPEED**

70" Drivers

**MAINTENANCE**

Lowest Possible both for  
 Locomotive and Right-of-Way

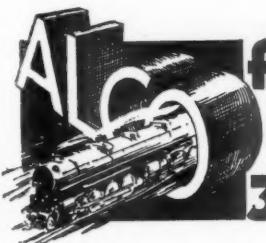
**NEW POWER — NEW PROFITS**

Weight on Drivers,  
 Weight of Engine,  
 Cylinders,

399,000 pounds  
 590,000 pounds  
 22 x 32 inches

Diameter of Drivers,  
 Boiler Pressure,  
 Tractive Power,

70 inches  
 265 pounds  
 99,600 pounds



**AMERICAN LOCOMOTIVE COMPANY**

**30 CHURCH STREET • NEW YORK • N.Y.**

Railway operating income	2,328,753	1,967,815	+360,938
Net rents	1,879	1,506	+373
<b>NET RAILWAY OPERATING INCOME</b>	<b>2,330,633</b>	<b>1,969,321</b>	<b>+361,312</b>
Other income	32,657	47,992	-15,335
<b>TOTAL INCOME</b>	<b>2,363,290</b>	<b>2,017,314</b>	<b>+344,976</b>
Interest on funded debt	1,189,414	1,289,433	-100,019
<b>TOTAL FIXED CHARGES</b>	<b>1,156,664</b>	<b>1,278,672</b>	<b>-122,008</b>
<b>NET INCOME</b>	<b>\$1,102,428</b>	<b>\$630,293</b>	<b>+\$472,135</b>

\* Restated for the purpose of comparison with the Income Account for the year 1937.

MAINE CENTRAL.—*Annual Report.*—The annual report of this road for the year ended December 31, 1937, shows net income, after interest and other charges, of \$473,547, as compared with net income of \$556,162 in 1936. Selected items from the income account follow:

	1937	1936	Increase or Decrease Compared with 1936
<b>RAILWAY OPERATING REVENUES</b>	<b>\$12,499,153</b>	<b>\$277,037</b>	
Maintenance of way	1,919,951	-117,598	
Maintenance of equipment	2,196,059	147,711	
Transportation	4,457,574	-88,053	
<b>TOTAL OPERATING EXPENSES</b>	<b>9,173,103</b>	<b>-78,609</b>	
Operating ratio	73.39	-2.31	
<b>NET REVENUE FROM OPERATIONS</b>	<b>3,326,050</b>	<b>355,646</b>	
Railway tax accruals	711,091	-73,281	
Railway operating income	2,614,959	428,927	
Equipment and Joint Facility Rents—Net Dr.	529,856	-188,237	
<b>NET RAILWAY OPERATING INCOME</b>	<b>2,085,102</b>	<b>617,165</b>	
Non-operating income	459,087	-27,611	
<b>TOTAL INCOME</b>	<b>2,544,190</b>	<b>589,553</b>	
Rent for leased roads	599,256	510	
Interest on funded debt	1,326,230	82,704	
<b>TOTAL DEDUCTIONS FROM GROSS INCOME</b>	<b>2,070,642</b>	<b>33,391</b>	
<b>NET INCOME</b>	<b>\$473,547</b>	<b>\$556,162</b>	

MISSOURI PACIFIC.—*SEC Investigation.*—The Securities and Exchange Commission, on March 17, denied a motion of this company to dismiss proceedings against it on the ground that the filing of certain amendments had corrected any deficiency in its registration. Karl D. Loos, counsel for the company, contended that the amendments filed the previous day had corrected any deficiencies. The commission granted motions of counsel for the Alleghany Corporation, trustee for the Missouri Pacific and common stockholders to intervene in the proceedings. The investigation has been instituted to determine whether or not the registration of preferred and common stocks of this company should be suspended or withdrawn from the New York Stock Exchange because of alleged failure to file certain pertinent information in its registration statement and annual reports.

NEW YORK, NEW HAVEN & HARTFORD.—*Abandonment.*—Examiner J. S. Prichard of the Interstate Commerce Commission, in a proposed report to the commission, has recommended that it authorize the trustees to abandon a line extending from West Haven, Conn., to Orange, 4.8 miles.

The examiner has also recommended that the commission deny the application of the trustees to abandon the line extending from Orange, Conn., to Derby Junction, 3.4 miles.

NEW YORK, ONTARIO & WESTERN.—*Annual Report.*—The annual report of this company for the year ended December 31, 1937, shows net deficit, after interest and other charges, of \$1,675,286, as compared with net deficit of \$330,843 in 1936. Selected items from the Income Account follow:

	1937	1936	Increase or Decrease
<b>RAILWAY OPERATING REVENUES</b>	<b>\$6,480,030</b>	<b>\$8,705,934</b>	<b>-\$2,225,904</b>
Maintenance of way	754,128	920,311	-166,183
Maintenance of equipment	1,508,145	1,605,663	-97,518
Transportation—Rail	3,127,410	3,614,882	-487,472
<b>TOTAL OPERATING EXPENSES</b>	<b>5,799,171</b>	<b>6,583,844</b>	<b>-784,673</b>
Operating ratio	89.49	75.62	+13.87
<b>NET REVENUE FROM OPERATIONS</b>	<b>680,858</b>	<b>2,122,090</b>	<b>-1,441,232</b>
Railway tax accruals	447,420	570,741	-123,321
Railway operating income	233,438	1,551,349	-1,317,911
Equipment rents—Net	326,257	431,893	-105,636
Joint facility rents—Net	81,998	78,817	+3,181
<b>NET RAILWAY OPERATING INCOME</b>	<b>*174,816</b>	<b>1,040,637</b>	<b>-1,215,453</b>
Non-operating income	48,586	210,356	-161,770
<b>GROSS INCOME</b>	<b>126,229</b>	<b>2,250,994</b>	<b>-2,377,223</b>
Rent for leased roads and equipment	234,281	234,275	+6
Interest on funded debt	1,241,096	1,233,788	+7,308
<b>TOTAL DEDUCTIONS FROM GROSS INCOME</b>	<b>1,549,056</b>	<b>1,581,837</b>	<b>-32,781</b>
<b>NET DEFICIT</b>	<b>\$1,675,286</b>	<b>\$330,843</b>	<b>+\$1,344,443</b>

\* Deficit.

PUTNAM COUNTY.—*Acquisition.*—Examiner R. R. Molster of the Interstate Commerce Commission, in a proposed report to the commission, has recommended that it deny authority to this company to acquire and operate a line extending westward from Granville, Ill., to Mark, 1.8 miles.

ST. LOUIS-SAN FRANCISCO.—*Abandonment.*—Trustees of this road have applied to the Interstate Commerce Commission for authority to abandon a 1.95-mile segment of its Empire branch in Walker County, Ala.

ST. LOUIS SOUTHWESTERN.—*Reorganization.*—The Southern Pacific has filed exceptions to I. C. C. Examiner J. V. Walsh's proposed plan for reorganization of this company. Other exception briefs were filed by the Chemical Bank & Trust Company of New York, the Chase National Bank of New York, Mississippi Valley & Trust Company, and the Security Research Bureau.

TENNESSEE CENTRAL.—*Annual Report.*—The annual report of this company for 1937 shows net income after interest and other charges of \$120,011 as compared with net income of \$176,785 in 1936. Selected items from the income statement follow:

	1937	1936	Increase or Decrease
Average Mileage Operated	286.86	286.93	.07
<b>RAILWAY OPERATING REVENUES</b>	<b>\$2,512,133</b>	<b>\$2,514,190</b>	<b>-\$2,057</b>
Maintenance of way	392,618	417,619	-25,001
Maintenance of equipment	372,161	353,854	+18,307
Transportation	886,613	829,730	+56,883
<b>TOTAL OPERATING EXPENSES</b>	<b>1,846,309</b>	<b>1,784,348</b>	<b>+61,960</b>
Operating ratio	78.28	74.57	+3.71
<b>NET REVENUE FROM OPERATIONS</b>	<b>665,824</b>	<b>729,842</b>	<b>-64,018</b>
Railway tax accruals	120,190	90,560	+29,629
Railway operating income	545,633	639,281	-93,647
Equipment rents—Net	205,437	161,649	+43,787
Joint facility rents—Net	5,745	5,780	-34
Non-operating income	27,539	11,105	+16,434
<b>GROSS INCOME</b>	<b>573,173</b>	<b>650,387</b>	<b>-77,214</b>
Rent for leased roads and equipment	17,490	62,504	-45,014
Interest on funded debt	212,147	217,162	-5,015
<b>TOTAL DEDUCTIONS FROM GROSS INCOME</b>	<b>453,162</b>	<b>473,602</b>	<b>-20,440</b>
<b>NET INCOME</b>	<b>\$120,011</b>	<b>\$176,785</b>	<b>-\$56,774</b>

WABASH.—*Partial Payment.*—On March 21 the Wabash paid 80 per cent of the face amount of the coupon series No. 74, due March 1, 1938, on Wabash Railroad Company Toledo and Chicago division first mortgage 4's.

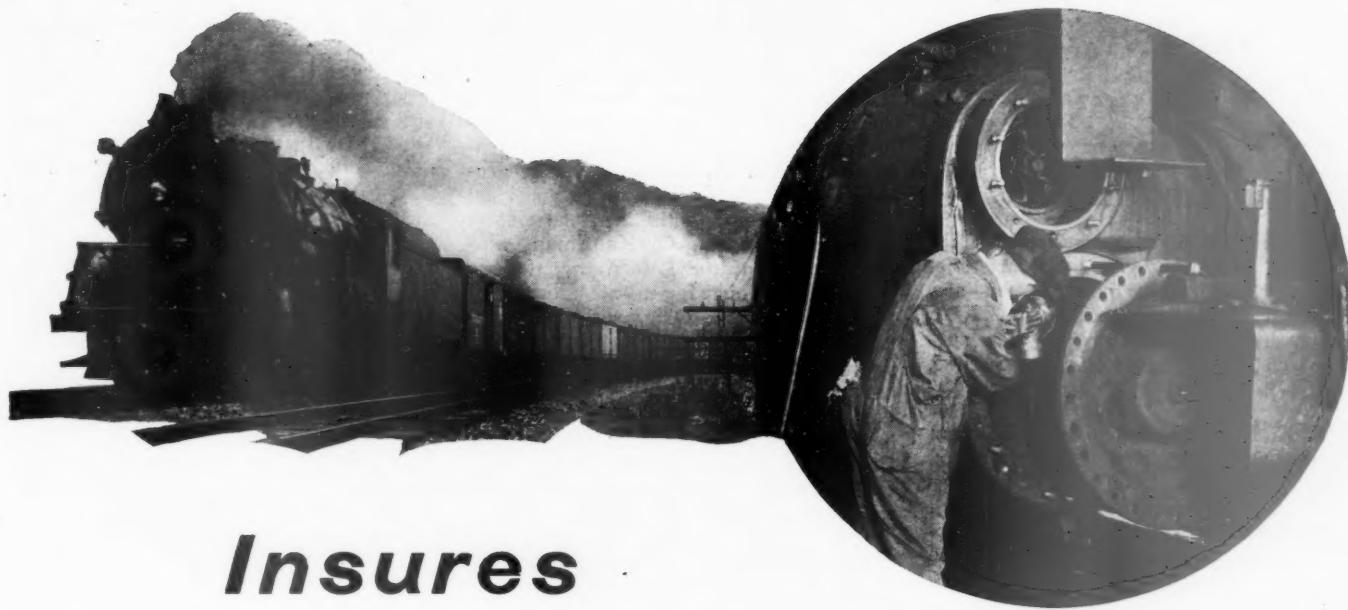
WABASH.—*Reorganization Plan.*—The time for filing objections to the reorganization plan of the Wabash, originally fixed for March 15 and later extended to April 15, has again been extended by the district court. Objections now may be filed up to 30 days after the Interstate Commerce Commission makes a report on the plan, which was filed February 15. The extension was granted in view of the fact that the commission may require modification of the plan.

WABASH.—*Securities.*—The Wabash Railroad Company, a new corporation, has applied to the Interstate Commerce Commission for authority to issue new securities to effect reorganization of the Wabash Railway, which is now in equity receivership. The application seeks commission approval under the Reconstruction Finance Corporation Act for issuance of certain securities to the RFC in payment of Wabash receivers certificates now held by the RFC. A plan for effecting the reorganization of the Wabash is now pending before the United States District court in St. Louis.

#### Average Prices of Stocks and Bonds

	Last Mar. 22	Last week	Last year
Average price of 20 representative railway stocks..	23.36	27.06	58.71
Average price of 20 representative railway bonds..	57.46	59.73	82.21

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# Insures Higher Availability

**L**OCOMOTIVES equipped with HUNT-SPILLER *Air Furnace GUN IRON* Wearing Parts in the valves and cylinders are noted for their high monthly revenue mileage.

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The wear-resisting qualities of these HUNT-SPILLER *Air Furnace GUN IRON* Cylinder and Valve Parts not only increase availability and reduce maintenance costs, but also play a big part in the economical fuel consumption of modern power.



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# HUNT-SPILLER GUN IRON

*Air Furnace*

# Railway Officers

## EXECUTIVE

**Charles W. Brown**, president of the Western Maryland, with headquarters at Baltimore, Md., has been elected also chairman of the board, succeeding **M. A. Long**, deceased, whose obituary was published in the *Railway Age* of March 5, page 433.

**R. K. McClain**, general superintendent transportation, Southern Railway System, with headquarters at Knoxville, Tenn., has been appointed assistant vice-president, with headquarters at Washington, D. C., succeeding **W. S. Andrews**, who will retire on April 1, after 35 years of service.

**R. C. Stovall**, executive vice-president of the Columbus & Greenville, was elected to the presidency of that road at a meeting of the directors on March 22. Mr.



R. C. Stovall

Stovall succeeds his father, **A. T. Stovall**, whose death on March 1 was reported in the *Railway Age* of March 12. R. C. Stovall was born on November 18, 1899, at Okolona, Miss. After graduating from the University of Mississippi, he continued the study of law at Columbia University and Harvard University. During the war he served with the 81st Field Artillery. Mr. Stovall became general counsel of the Columbus & Greenville in 1936, and was elected in addition vice-president later in that year. On January 14 of this year he was made executive vice-president. His headquarters are in Columbus, Miss.

## FINANCIAL, LEGAL AND ACCOUNTING

**Henry Taylor, Jr.**, general solicitor of the Chesapeake & Ohio, with headquarters at Richmond, Va., has retired from the service of the company, after more than 50 years service. **M. Carter Hall**, general attorney, C. & O., has been appointed

general solicitor of that road and the Pere Marquette, in general charge of rate matters, with headquarters at Richmond, Va. **Thomas L. Preston**, assistant general solicitor, C. & O., has been appointed general solicitor, with headquarters at Richmond. **David H. Leake**, assistant general solicitor, C. & O., has been appointed general attorney, with headquarters at Richmond. **Joseph C. Kauffman**, general attorney of the Pere Marquette, has also been appointed general attorney of the Chesapeake & Ohio, with headquarters at Cleveland, Ohio. **Jervis Langdon, Jr.**, assistant general attorney, C. & O., has been appointed general attorney of that road and the Pere Marquette, with headquarters at Richmond. **George H. Gardner**, assistant general attorney, C. & O., has been appointed general attorney, with headquarters at Washington, D. C.

**John J. Jenkins**, assistant treasurer of the Baltimore & Ohio, with headquarters at Baltimore, Md., has been appointed treasurer, to succeed **E. M. Devereux**, deceased. **J. C. McCahan**, chief clerk in the treasurer's office, has been appointed assistant treasurer, with headquarters at Baltimore, to succeed **T. H. Schultz**, deceased.

## TRAFFIC

**Raymond C. Culter**, chief clerk to the traffic manager of the St. Louis-San Francisco at Tulsa, Okla., has been promoted to general agent at San Francisco, Cal., succeeding **Charles D. Sample**, who has resigned.

**R. L. Beiswenger** has been appointed general agent of the Missouri-Kansas-Texas, with headquarters at Pittsburgh, Pa., succeeding **J. D. Feeley**, who has been appointed special representative, with the same headquarters.

## OPERATING

**E. C. Cavey**, assistant superintendent of the Baltimore division of the Baltimore & Ohio, with headquarters at Baltimore, Md., has been promoted to superintendent of the St. Louis division, with headquarters at Washington, Ind., effective March 16, to succeed **W. F. Booth**, who has resigned.

**S. S. Brooks**, superintendent of the Danville division of the Southern Railway System, with headquarters at Greensboro, N. C., has been appointed general superintendent transportation, with headquarters at Knoxville, Tenn., succeeding **R. K. McClain**. **T. C. Blackwell**, superintendent of the Atlanta division, at Atlanta, Ga., has been appointed general superintendent transportation, with headquarters at Charlotte, N. C., to succeed **W. M. Cowhig**, who will retire on April 1, after 51 years of service. **W. F. Cooper**, superintendent of the Asheville division, at Asheville, N. C., has been transferred in the same capacity to the Atlanta division, at Atlanta, Ga., succeeding Mr. Blackwell.

**W. H. Cheney**, superintendent of the Georgia Southern & Florida, with headquarters at Macon, Ga., has been appointed superintendent of the Asheville division, at Asheville, N. C., succeeding Mr. Cooper. **W. H. DeButts**, superintendent of terminals, with headquarters at Jacksonville, Fla., has been appointed superintendent of the Georgia Southern & Florida, at Macon, Ga., succeeding Mr. Cheney. **F. M. Hair**, superintendent of the Columbia division, at Columbia, S. C., has been transferred in the same capacity to the Danville division, at Greensboro, N. C., succeeding Mr. Brooks. **M. E. Tatem**, assistant superintendent at Columbia, S. C., has been appointed superintendent of the Columbia division, at Columbia, succeeding Mr. Hair. **Z. L. Mobley**, superintendent of the Richmond division, at Richmond, Va., has been transferred in the same capacity to the Charlotte division, at Greenville, S. C., succeeding **M. O. Dunbar**, who will retire on April 1, after 47 years of service. **H. B. Griffith**, superintendent of the Charleston division, at Charleston, S. C., has been transferred in the same capacity to the Richmond division, at Richmond, Va., succeeding Mr. Mobley. **E. L. Keister** has been appointed superintendent of the Charleston division, at Charleston, S. C., succeeding Mr. Griffith.

**S. J. Hale**, roadmaster of the Radford division of the Norfolk & Western, with headquarters at Roanoke, Va., has been promoted to assistant superintendent of the Shenandoah division, with the same headquarters, to replace **J. P. Jackson**, who has been transferred to the Scioto division, with headquarters at Portsmouth, Ohio. Mr. Jackson succeeds **O. M. Dawson**, who has been transferred to the Pocahontas division at Bluefield, W. Va. where he relieves **F. L. Burton**, who has been transferred to the Radford division at Roanoke, succeeding **W. L. Anglin**, who has retired.

## ENGINEERING AND SIGNALING

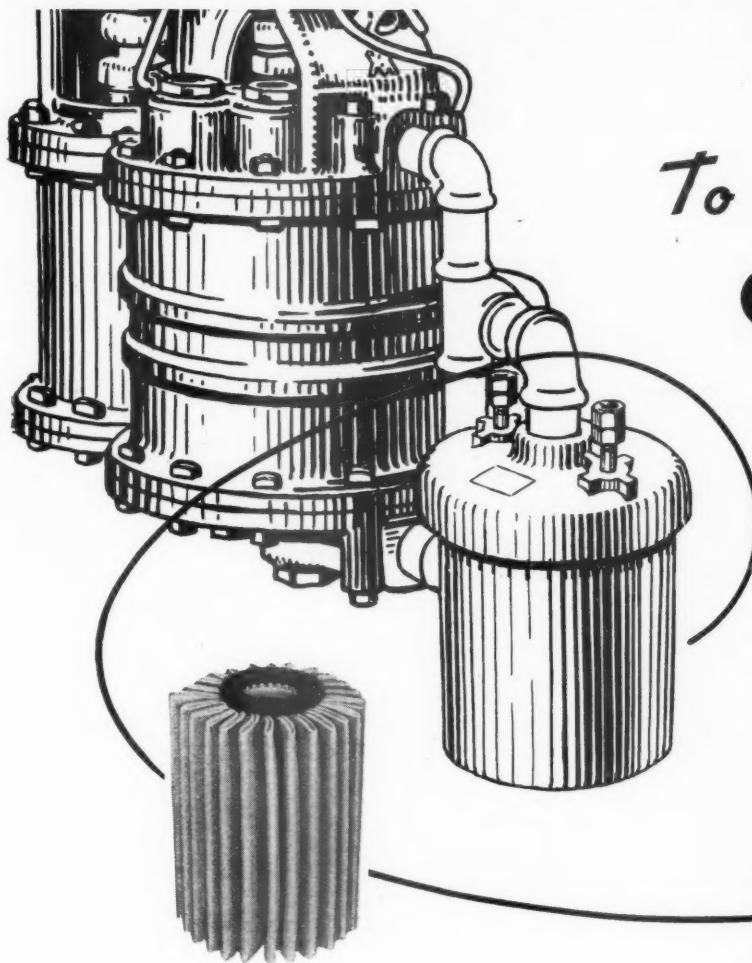
**J. D. Morris**, supervisor of track of the Philadelphia Terminal division of the Pennsylvania, with headquarters at Philadelphia, Pa., has been appointed division engineer of the Monongahela division.

## MECHANICAL

**Harvey H. Jones** has been appointed master mechanic of the Wyoming division of the Union Pacific, with headquarters at Cheyenne, Wyo., succeeding **R. F. Weiss**, who has been assigned to other duties.

## OBITUARY

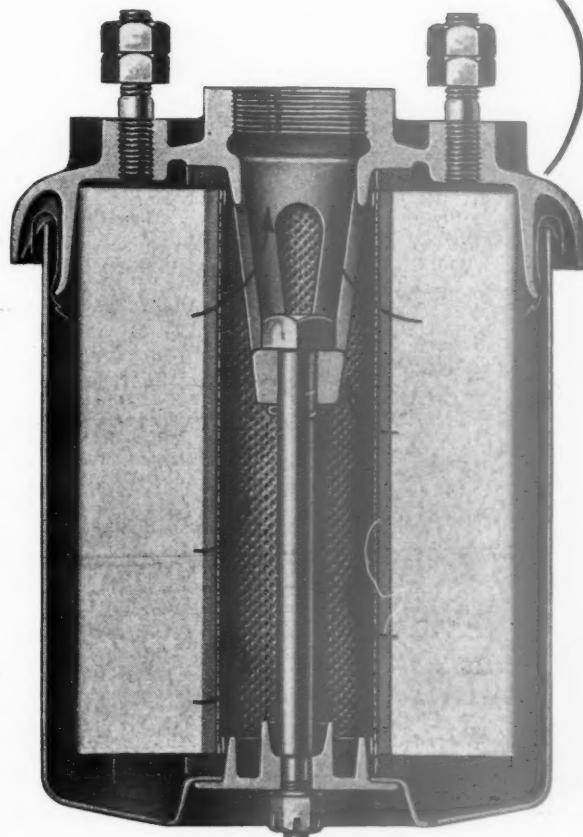
**Joseph W. Foote**, general superintendent of the Niagara Junction Railway, with headquarters at Niagara Falls, N. Y., died there on February 14 at the age of 55. Mr. Foote was for many years con-  
(Continued on page 592)



## To Keep an Enemy Outside the Gate

Dirt is a bad enemy of good brake performance. It should be kept in the outside atmosphere and out of the inside air . . . The most effective means yet devised to insure clean air for compressors—an outstanding example of progressive development—is the Filter Type suction strainer. » » » » »

Very effective filtering material, large filtering area, and a removable filter unit, characterize this device . . . High grade felt, radially pleated over wire mesh, and surrounding a cylindrical screen, forms the filter element, which thus has a straining area many times that of the inlet or outlet passage. The air, therefore, flows through it very slowly, and is effectively filtered free of suspended dirt, after the heavier particles have been precipitated in the dirt chamber by action of a baffle . . . The filter unit may easily be removed for inspection and cleaning, simply by backing off the nut that holds the device assembled . . . Mounting studs correspond dimensionally with those of other strainers, thus permitting application of the new filter to existing supporting brackets.



**WESTINGHOUSE AIR BRAKE CO.**  
General Office and Works » Wilmerding, Penna.

# ANNUAL REPORT OF PULLMAN INCORPORATED AND ALL SUBSIDIARIES For Fiscal Year 1937

March 19, 1938.

CONSOLIDATED BALANCE SHEET DECEMBER 31, 1937 AND 1936		
ASSETS	1937	1936
<b>CURRENT ASSETS:</b>		
Cash . . . . .	\$ 28,369,471.20	\$ 26,857,607.77
U. S. Government Securities (1937—Market Value \$18,022,530.94) . . . . .	16,724,509.01	12,774,474.87
Accounts and Notes Receivable . . . . .	9,082,432.43	9,024,522.31
Equipment Trust and Other Deferred-Payment Car Accounts . . . . .	7,573,779.00	9,705,699.77
Marketable Securities (1937—Market Value \$1,948,618.11) . . . . .	2,318,433.47	2,385,877.68
Inventories at Cost— Carrier Subsidiary . . . . .	\$ 8,124,937.36	\$ 6,894,758.14
Manufacturing Subsidiaries . . . . .	10,686,198.05	5,569,090.77
Total Inventories . . . . .	\$ 18,811,135.41	\$ 12,463,848.91
	\$ 82,879,760.52	\$ 73,212,031.31
<b>INVESTMENT IN AFFILIATED COMPANIES AND OTHER SECURITIES AT COST . . . . .</b>	<b>3,959,627.88</b>	<b>3,990,340.89</b>
<b>SPECIAL DEPOSITS WITH VARIOUS STATES UNDER COMPENSATION ACTS . . . . .</b>	<b>193,785.14</b>	<b>238,389.61</b>
<b>RESERVE FUND ASSETS:</b>		
U.S. Government Securities held to fund Pension and Insurance Reserves . . . . .	5,554,675.49	8,854,200.08
<b>DEFERRED CHARGES APPLYING TO FUTURE OPERATION OF THE PROPERTIES . . . . .</b>	<b>445,370.35</b>	<b>582,292.78</b>
	<b>\$ 93,033,219.38</b>	<b>\$ 86,877,254.67</b>
<b>EQUIPMENT AND PROPERTY:</b>		
Balance, beginning of Year . . . . .	\$370,691,678.38	\$364,490,222.61
Additions during Year . . . . .	8,830,172.96	9,727,833.01
<i>Less:</i> Retirements during Year . . . . .	\$379,521,851.34	\$374,218,055.62
	12,825,223.38	3,526,377.24
	\$366,696,627.96	\$370,691,678.38
<b>DEDUCT</b>		
Depreciation Reserves:		
Balance, beginning of Year . . . . .	\$192,334,119.35	\$180,080,566.42
Additions during Year . . . . .	12,182,751.77	14,342,180.21
<i>Less:</i> Charges on Account of Retirements during Year . . . . .	\$204,516,871.12	\$194,422,746.63
	8,439,681.78	2,088,627.28
	\$196,077,189.34	\$192,334,119.35
Balance, end of Year, less Depreciation Reserves	\$170,619,438.62	\$178,357,559.03
	\$263,652,658.00	\$265,234,813.70
<b>LIABILITIES</b>		
<b>CURRENT LIABILITIES:</b>		
Current Accounts Payable and Payrolls . . . . .	\$ 8,258,044.67	\$ 9,547,781.78
Accrued Taxes, not yet due, including Provision for Federal Income and Undistributed Profits Taxes . . . . .	7,082,524.34	5,755,477.80
	\$ 15,340,569.01	\$ 15,303,259.58
<b>RESERVES:</b>		
Pension and Insurance Reserves . . . . .	\$ 5,746,134.85	\$ 8,956,163.53
Reserve for Contingencies . . . . .	3,350,000.00	3,350,000.00
Other Reserves . . . . .	3,204,229.28	3,193,956.24
	\$ 12,300,364.13	\$ 15,500,119.77
<b>DEFERRED CREDITS APPLYING TO FUTURE OPERATION OF THE PROPERTIES . . . . .</b>	<b>\$ 3,087,718.78</b>	<b>\$ 3,456,467.68</b>
<b>CAPITAL STOCK:</b>	<b>SHARES</b>	
Pullman Incorporated:	1937	1936
Authorized . . . . .	3,875,000	3,875,000
Unissued . . . . .	448	485
Issued— At stated value of \$50 per share . . . . .	3,874,552	3,874,515
Reacquired— (In Treasury) at stated value of \$50 per share . . . . .	54,363	54,359
Outstanding— At stated value of \$50 per share . . . . .	3,820,189	3,820,156
<b>The Pullman Company:</b> (a subsidiary)		
Outstanding— At par value of \$100 per share . . . . .	67,279	88,105
	6,727.90	8,810.50
	\$191,016,177.90	\$191,016,610.50
<b>SURPLUS:</b>		
Excess of value of property acquired by issue of shares of capital stock over the stated value of \$50 per share, less subsequent write-downs on said property out of this surplus as authorized by the Board of Directors . . . . .	\$ 86,937,342.87	\$ 88,419,518.90
Net profits earned since April 30, 1937 (date of re- organization) . . . . .	78,224,730.22	64,287,254.27
<b>DEDUCT:</b> Dividends paid during the period from April 30, 1937 to date . . . . .	\$165,162,073.09	\$152,706,773.17
	123,254,244.91	112,748,417.00
Balance, at December 31 . . . . .	\$ 41,907,828.18	\$ 39,958,356.17
	\$263,652,658.00	\$265,234,813.70

[Advertisement]

#### To STOCK HOLDERS:

There are submitted herewith a certified Consolidated Balance Sheet of the Corporation and of its wholly-owned subsidiary companies as at December 31, and certified statements of Consolidated Income and of Surplus Account for the year ended December 31, all in comparative form for 1937 and 1936.

#### Earnings

Consolidated Income Account shows a net earning of \$12,275,950.03 (\$3.17 per share) in 1937 after all charges and taxes, which nearly doubled the earning of \$6,347,106.70 (\$1.64 per share) in 1936.

The important features of operations in the three major lines of business activity conducted by the Corporation and its subsidiaries were as follows:

In the sleeping car business there was a stated earning of \$5,650,927.43, as compared with \$4,282,677.61 in 1936. However, this earning for 1937 includes a non-recurring credit of \$799,774.54 resulting from remission of 1936 tax accruals under the superseded Railroad Retirement Act of 1935, and was further benefited to the extent of approximately \$2,057,000 by the reduction in depreciation charges hereinafter referred to.

In the manufacturing business, an earning of \$9,059,115.06 more than tripled the earning of \$2,747,438.37 in 1936, and represents the highest profit level in this division since 1930. The manufacturing business accounted for nearly three-fifths (59.3%) of the total 1937 earning—as against 35.1% during the previous year—reflecting a sustained fair level of shipped production throughout the year.

The earning of \$557,686.53 from security investments, after provision for administrative expense of the parent company, reflects a contraction of \$242,894.72 from 1936 when substantial non-recurring profit was realized from the sale of certain securities. Absence of interest-earning on securities sold or collected at maturity during the year, the cash proceeds of which were absorbed in other working capital accounts, was also a contributing factor.

#### Financial Condition

Consolidated Working Capital amounted to \$67,539,191.51 as at December 31, 1937, as compared with \$57,908,771.73 at the close of 1936. The total of Cash and Government securities (at book value and exclusive of those held in reserve funds) as of December 31, 1937, was \$45,093,980.21.

The increase of \$6,347,286.50 in total inventories reflects principally the expanded scale of operations in the manufacturing subsidiaries where the work in process at the end of 1937 was on a higher level than at the year-earlier date. Manufacturing inventories are bought against orders taken, and these materials included in the 1937 year-end inventory will be shipped out as manufactured product before the close of the first-half of the year. Inventories of the sleeping car subsidiary represent live materials and operating supplies that are consumed in the conduct of the business and fluctuate in direct relation to the variation in car operations, traffic volume, and extent of the air conditioning program.

#### Sleeping Car Business

Sleeping car operations in 1937 were characterized by a mid-year transition from a period of sustained recovery in traffic volume and earning to a period of lagging revenue, expanding operating costs, and dwindling margin between income and outgo.

The rising trend in the operating expense ratio inherent in a period of generally higher labor and material costs and heavier taxes was accentuated by application, starting August 1st, of a 5¢-an-hour advance in wages of all classified employee groups

in this division, to conform to similar action taken by the Railroads on same date with respect to their non-operating employee groups. Beginning with August, when this wage advance of approximately \$270,000 a month became effective, earnings of the sleeping car business declined from the preceding year and have continued below year-earlier levels for each succeeding month.

In an effort to offset the sharply higher unit costs of its operations, the sleeping car subsidiary filed a petition with the Interstate Commerce Commission under date of November 22, 1937, asking approval of an increase of 10% in all sleeping and parlor car rates, fares, and charges. This application, which is still pending, was made on the basis of the same sort of revenue need set forth by the Railroads in their request for higher freight and passenger rates, and the argument therefor was summarized in pamphlet transmitted to Stockholders in the special dividend mailing of December 21st. This increase of 10% in all sleeping and parlor car rates, fares, and charges, with maintenance of volume, is necessary to restore the margin between revenues and expenses in this division.

In a further attempt to counteract the rising trend of operating expenses, accentuated by absence of compensatory gains in traffic volume, retrenchment in controllable expenditure is being undertaken consonant with the present necessary level of car operations. However, maintenance of equipment is still being carried on at the level obtaining in 1937, as constantly improved condition of the fleet of general service equipment is considered to be a necessary and strongly supporting factor for the reserved class of rail passenger travel. Due to the relatively rigid nature of wage and tax expenditures, which account for nearly two-thirds of the total operating costs, substantial improvement in operating ratio cannot be anticipated unless and until there is a reversal of the downward trend in gross revenue, achieved through a larger volume of traffic, higher rates, or both.

Various innovations in Pullman sleeping car service were developed during the year, including a folding type of berth-bed providing improved dressing space for the user of the single occupancy section accommodation, which has become one of the most important sources for increase of Pullman revenue. A number of lightweight Pullman sleepers of the new "roomette" design were placed in operation. Selling for the price of a single occupancy open section, this advanced type of small room accommodation promises to become one of the most popular classes of service available to the overnight traveler.

There has also been continued development in fast long-distance sleeping car services. During the year there were placed in service on fast schedules between Chicago and the Pacific Coast two new 14-car Pullman-built streamliners of the most complete and highly developed type. Each of these trains carries in addition to the usual complement of dining and lounge cars, coaches and baggage cars of Railroad ownership, a full complement of the most modern lightweight Pullman sleepers.

Since the first of the year there have been placed in operation on another of the Transcontinental lines six 7-car trains of lightweight Pullman-built sleepers, of a type especially designed to accord with train-appearance features of other equipment of the using road. An additional train of six of these special-type sleeper units, now in course of construction at Pullman Car Works, will be placed in service on the same line late in the year.

Extensive research and planning by Pullman engineers have gone into the building of several trains of lightweight streamlined equipment now under way at Pullman Car Works, for operation in famous limited train services of Eastern Trunk Lines.

The sleeping cars in all these new trains contain the new types of accommodation that have been developed for Pullman service, are outstanding in comfort and decorative style, as well as in improved mechanical appliances, and are one of the most important factors in the current enhancement of the world-wide reputation of American Railroads in passenger transportation.

In July, 1937, there was placed in operation on one of the Transcontinental roads a complete train of standard Pullman cars to which there had been applied new types of tight-lock coupling apparatus, rubber draft gear, improved truck springs, and other running-gear parts especially designed for smooth and quiet operation at high speeds. The exterior of these cars and the inter-car junctures have been modified to give an effective streamlined contour to the train. Improved parts of the kind mentioned

CONSOLIDATED SURPLUS ACCOUNT  
YEARS ENDED DECEMBER 31, 1937 AND 1936

	1937	1936
BALANCE OF SURPLUS, as at January 1	\$39,958,356.17	\$39,556,495.21
Credit adjustment on account of reduction of Pension Re- serve, The Pullman Com- pany	3,542,020.06	
	43,500,376.23	
Balance of Earnings from Income Account for year ended December 31	\$12,275,950.03	\$6,347,106.70
Adjustment on account of dis- position of American Austin Car Co. mortgage	25,000.00	
Adjustment arising from transactions in connection with acquisition of outstand- ing shares of The Pullman Company	260.32	
Adjustment on account of dis- position of Lyndora Hotel property	29,206.85	
	12,301,210.35	6,376,313.55
Less:		
Abandonment of manufac- turing properties	\$ 1,880,494.14	
Adjustment of revalued property units (cars) re- tired	1,507,436.35	243,856.30
Dividends declared and paid	10,505,827.91	5,730,596.29
	13,893,758.40	5,974,452.59
BALANCE OF SURPLUS, as at December 31	\$41,907,828.18	\$39,958,356.17

CONSOLIDATED INCOME ACCOUNT  
FOR THE YEARS ENDED DECEMBER 31, 1937 AND 1936

	1937	1936
EARNINGS:		
FROM CARRIER BUSINESS:		
Operating revenues	\$64,287,199.34	\$58,334,825.98
Operating expenses	\$48,854,614.91*	\$42,213,145.35
Provision for depreciation	9,781,657.00	11,839,003.02
Total	\$58,636,271.91	\$54,052,148.37
Net Operating Income	\$ 5,650,927.43	\$ 4,282,677.61
FROM MANUFACTURING BUSINESS:		
Net sales and operating revenues	\$72,261,847.44	\$45,251,511.03
Cost of goods sold and operating expenses	\$58,890,850.43	\$38,672,860.31
Provision for depreciation	2,401,094.77	2,503,177.19
Selling and administrative expenses	1,910,787.18	1,328,035.16
Total	\$63,202,732.38	\$42,504,072.66
Net Manufacturing Profit	\$ 9,059,115.06	\$ 2,747,438.37
FROM SECURITY INVESTMENTS:		
Income from Securities, Profit on securities sold, and Other Miscellaneous Income	\$ 872,756.89	\$ 1,231,023.21
Less:		
Balances in closed banks written off, in- terest paid, and miscellaneous income deductions	85,731.56	146,124.73
Administrative expense of Pullman Incorporated	229,338.80	284,317.23
Total	\$ 315,070.36	\$ 430,441.96
Net Investment Income	\$ 557,686.53	\$ 800,581.25
TOTAL EARNINGS FROM ALL SOURCES	\$15,267,729.02	\$ 7,830,697.23
Less: Provision for Federal Income Tax	2,655,183.75	1,414,318.56
Provision for Federal Surtax on Undis- tributed Profits	336,595.24	69,271.97
BALANCE OF EARNINGS CARRIED TO SURPLUS	\$12,275,950.03	\$ 6,347,106.70

\*Includes credit of \$759,774.54 accruing from remission  
of 1936 taxes under Railroad Retirement Act.

THE PULLMAN COMPANY

TRAFFIC AND OPERATING STATISTICS

COMPARATIVE STATEMENT FOR YEARS ENDED DECEMBER 31

ITEM	1933	1934	1935	1936	1937
CARS OWNED	8,478	8,473	8,027	8,004	7,763
CARS OPERATED	4,944	5,029	5,057	5,355	5,500
CAR MILES	710,747,262	737,167,857	758,554,012	825,945,721	872,598,392
REVENUE PASSENGERS:					
Berth	9,248,461	10,258,642	10,624,818	12,049,359	12,849,076
Seat	4,468,077	4,846,707	4,855,890	5,148,377	4,895,492
Total	13,716,538	15,105,349	15,478,708	17,197,736	17,744,568
REVENUE PASSENGER MILES	6,141,986,577	6,891,002,293	7,146,669,648	8,354,840,293	9,170,428,451
REVENUE FROM CARS	\$ 39,316,239	\$ 44,523,817	\$ 46,758,260	\$ 52,645,993	\$ 57,666,648
Average per Car	\$ 7,952.31	\$ 8,853.77	\$ 9,246.43	\$ 9,830.82	\$ 10,484.46
EXPENSES	\$ 39,880,665	\$ 44,124,174	\$ 48,405,241	\$ 49,191,772	\$ 53,447,531
Average per Car	\$ 8,066.48	\$ 8,774.29	\$ 9,572.12	\$ 9,185.80	\$ 9,717.38
NET EARNING FROM CARS	\$ 564,820	\$ 399,643	\$ 1,040,081	\$ 3,454,221	\$ 4,219,117
TRAFFIC AVERAGES:					
Average Revenue per Passenger	\$ 2.87	\$ 2.95	\$ 3.02	\$ 3.05	\$ 3.25
Average Net Earning per Passenger	\$ 0.04*	\$ 0.03	\$ 0.11*	\$ 0.30	\$ 0.34
Average Net Earning per Car per Day	\$ 0.31*	\$ 0.22	\$ 0.89*	\$ 1.76	\$ 2.10
Average Mileage per Car Operated	143,760	146,589	150,006	154,232	158,648
Average Journey per Pass- enger (Miles)	448	456	462	466	517
Average Miles per Car per Day	394	402	411	421	435
Average Loading per Car (Passenger)	8.64	9.35	9.42	10.12	10.51

\*Figures in *italics* denote loss.  
Includes Pullman proportion of expense of operation of air conditioning equipment.

\*After provision for Federal Taxes.

above have been essential factors in the smooth riding-performance obtained with the new lightweight equipment, and this re-equipped train of standard-type equipment has demonstrated very conclusively the possibility of adapting existing types of passenger cars to high-speed operation with such equipment or for operation in trains with the new-type cars. With the long-known advantages of the six-wheel truck design and the proved qualities of standard Pullman construction, this train and one of similar type developed and recently placed in service by one of the Eastern roads, point the way to very effective modernization, at reasonable costs, of those units of the existing stock of Pullman and Railroad passenger equipment that are of fundamentally sound steel construction. The larger capacity Diesel-electric power plants as well as the more powerful and efficient high-speed steam locomotives now available, are capable of hauling such uniformly equipped unit trains, of any practicable length, and at speeds limited only by track conditions.

#### Manufacturing Business

Production and earning of the group of manufacturing subsidiaries were sustained throughout 1937 by the backlog of unfilled car orders accumulated during the last quarter of 1936 and the first five months of the year just closed. Entering June, 1937, railroad equipment buying dried up and conditions faced by the Pullman manufacturing group and by the carbuilding industry as a whole at the 1937 year-end were in sharp contrast with those at the close of 1936. The Corporation's manufacturing group secured a good proportion of the orders for freight and passenger cars placed with commercial carbuilders in 1937. Its manufacturing facilities have been maintained in good physical condition, and adequate organization is available for expansion of operations promptly to meet any upturn in the demand for production of new equipment.

\* \* \*

It is obvious that regardless of any stimulus to new equipment purchases which may arise as result of the Commission's allowance of a part of the Roads' application for increased freight rates, production and earning performances in the Corporation's manufacturing group for the first half of 1938 will yield unfavorable comparison with those for the corresponding 1937 period, due to the small volume of orders now on hand and the inevitable time-lag in turning out units which might be ordered during the second quarter this year.

\* \* \*

The rapid development of new-style lightweight, traffic-creative trains in recent years has strengthened the competitive status of the railway passenger transportation service, and will undoubtedly tend to hasten replacement of much of the existing stock of passenger train cars. The manufacturing subsidiary has continued to play a major role in the development and construction of new-type lightweight cars and unit trains for the rail passenger services. In addition to numerous lots of individual car units there were built for the Railroads several of the largest and most successful new-type trains for daylight operation, making a total of 272 lightweight car units built and delivered by Pullman to the Railroads in 1937.

#### Research

Technical research and experimentation went forward in all divisions in 1937, and many improvements were incorporated in the services and products supplied by the Corporation's subsidiaries.

The new Pullman-built lightweight sleeping cars—some of aluminum alloy and some of modern, high-tensile, alloy steel—are as strong and safe as the standard-type cars with which Pullman and the Railroads have established a record for safe-carriage of passengers not equaled by any other method of transportation. Although these new-type sleeping cars weigh much less than their predecessors, no compromises have been permitted in any cars of Pullman manufacture, with the standards developed in Pullman service; no stronger cars of that class have been built, and none lighter with equal standards of safety and riding comfort.

The Pullman organization has developed special carbuilding applications of the modern welding techniques and employs all of the new strong and light materials, at the places in lightweight passenger car construction appropriate to the particular qualities of the various materials. There is no effective patent limitation on the use of any of the new materials and there are open to the industry all the welding processes necessary in their fabrication. Dependability of structure and full compliance with all of the recognized standards are requirements adhered to in Pullman practice, rather than emphasis upon lightness without regard to the real strength characteristics of designs and materials employed. Appropriations in support of the work of the Re-

search Division of the organization have been generous and will be continued.

Continuous attention has been devoted to design and methods of construction of freight cars. Recognizing the large potential demand for freight cars of lightweight, economical design the manufacturing subsidiary is building a series of such cars, of welded, alloy-steel construction, for demonstration purposes and possible sale to interested Railroads. These new-type box cars each weigh about five tons (21.4%) less than a car of the best comparable design using conventional materials and construction methods, although of greater strength and better resistance to deterioration from corrosion. This new-type unit will compare favorably in present-day construction cost with the conventional, heavy-type of car. Using 1937 mileage figures this reduction in deadweight per car would save aggregate haulage of about 45,000,000,000 ton-miles per annum if all box cars in service were replaced by cars of the lighter design, and would yield an estimated saving of about \$80,000,000 per annum in haulage costs, according to the estimates of recognized authorities. There would also be made available for revenue production an additional five tons of capacity for each loaded box car hauled. Once the advantages of this type of construction are fully recognized, there should be accelerated replacement of the types of un-economical freight equipment now in use.

#### Taxes

Tax bills have become an increasingly burdensome part of the cost of doing business. Total taxes paid by Pullman Incorporated and all subsidiaries levied by Federal, State, and local governments for the fiscal year 1937 amounted to \$7,510,661 which absorbed approximately 38% of the total Net Income before taxes, and were equivalent to \$1.94 per share on total authorized share-capital. This was substantially the largest tax bill ever incurred by the Pullman group of companies and was equivalent to more than 3½ times the 1935 tax bill and nearly 1½ times the 1936 tax impost. About \$1,046,520 of the 1937-over-1936 increase in total taxes was accounted for by accruals under the Federal Railroad Retirement and Social Security Acts and by provision of \$336,595.24 for Federal surtax on undistributed profits. The rapidly mounting burden of taxation shows no tendency toward abatement; the increased scale of corporate taxes becoming effective this year under the Federal Social Security Act, coupled with the uncertainties as to amount and form of future Federal levies, with no present prospect of any substantial reduction in State and local taxes, will result in a materially larger drain upon corporate income.

#### Dividends

Total dividend disbursements in 1937 amounted to \$10,505,827.91, or \$2.75 per share, consisting of four quarterly installments of 37½ cents each, and an extra year-end dividend of \$1.25 per share made possible by the improved level of earnings. Stockholders were thus provided with the largest return on their investment for any year since 1934. Approximately 85% of Consolidated Net Income was paid out in the form of dividends last year. This is a higher dividend-earning ratio than the average ratio of 70% which obtained during the pre-depression years 1925-1930.

\* \* \*

The Corporation now has more than 35,000 stockholders, which is the largest number in its history. Eighty-six per cent of these stockholders own less than 100 shares apiece. Approximately 32,000 persons were employed, on the average, by the Pullman group of companies last year. The total amount of compensation paid to employees during the year in the form of wages was more than four times the sum disbursed to stockholders in the form of dividends. It is safe to conclude that the stockholders, the employees, and the general public all benefited by the improved results of Pullman operations in 1937.

In 1937 the Pullman business group completed the first full decade of activity in its present corporate form. Through a large part of that period it has been faced with trying economic conditions and with instability of the rail transportation industry of which it is an integral part, but its financial strength and its established business position have been well maintained. There are serious problems to be solved by cooperative effort on the part of Business and Government before economic balance will be restored. Judging by the record, the Pullman organization can be relied upon to meet its problems courageously and efficiently. Due acknowledgment is here made of the important part played by both management and employees in the operating results obtained in 1937, and of the sensible cooperation displayed in the adjustment of relationships under the new Federal labor legislation.

Respectfully submitted on behalf of the Board of Directors,  
David A. Crawford,  
President

## News (Railway Officers)

(Continued from page 588)

nected with the Erie as division superintendent.

**E. J. Adams**, who retired on April 1, 1930, as baggage agent of the Chicago Union Station, died on March 18 at Chicago.

**J. G. Hilgen**, division storekeeper of the Chesapeake & Ohio, with headquarters at the Russell car shops, Russell, Ky., died suddenly at his home on February 1, at the age of 48 years.

**George C. Briggs**, building engineer of the Canadian National, with headquarters at Winnipeg, Man., died suddenly at his home in that city on March 16.

**O. J. Rider**, general accountant of the Baltimore & Ohio since 1920, with headquarters at Baltimore, Md., died on March 20 in Union Memorial Hospital in that city, following an operation. Mr. Rider was 54 years old and had long been active in the work of the railway accounting officers' organization, both within the A. A. R. and when it was a separate association. His efforts in behalf of the railroads during the proceedings in Ex Parte 91 (the cost accounting investigation) and in the work incident to the tentative revision of the accounting classification several years ago are well known. He served on various committees of the accounting association, being a member of the Committee on Statistics at the time of his death. In addition, he was at the time of his death doing work of the greatest importance in preparation for the forthcoming I. C. C. cost finding inquiry—Ex Parte 122.

**Frank E. McCormack**, retired superintendent of the Buffalo division of the New York Central, died on March 21 at Nyack, N. Y., at the age of 70. Mr. McCormack was born on September 11, 1867, at Lawsons, N. Y., and entered railroad service as a telegraph operator on April 1, 1885, at Pierrepont Manor on the Rome, Watertown & Ogdensburg Railroad (now New York Central). In 1890 he was appointed train dispatcher of the New York Central at Watertown, N. Y., in 1894, chief train dispatcher there and in 1896, trainmaster at Carthage, N. Y. In 1905 Mr. McCormack became trainmaster at Watertown and in 1907, then assistant superintendent there and finally superintendent at Oswego, N. Y., on September 27, 1908. On June 1, 1910, he was appointed superintendent at Rochester, N. Y., and on April 1, 1911, superintendent at Corning, N. Y. He became general superintendent at Buffalo on April 25, 1924, and when the latter position was abolished he became superintendent at Buffalo on October 10, 1931. Mr. McCormack retired on October 31, 1937, after more than 52 years of service.

**Charles H. Johnson**, assistant chief engineer of the Nashville, Chattanooga & St. Louis at Nashville, Tenn., whose death on March 9 was reported in the *Railway Age* of March 19, had, with the exception

of about one year, been continuously with the N. C. & St. L. since 1900. He was born on August 30, 1877, in Nashville and received his education at Montgomery Bell academy and at Vanderbilt university in that city. After working for a time as a rodman and instrumentman on the improvement of the Cumberland river a War Department project, he entered railway service as a rodman on construction work for the N. C. & St. L. Becoming successively transitman, resident engineer, and chief of party, he was made engineer of construction in August, 1903, and placed in charge of double-track work. In March, 1916, he left this company to take up contracting work, serving as field superintendent on the construction of a dam for a hydro-electric project on the Caney Fork river. In October, 1917, he returned to the N. C. & St. L. as acting division engineer, and was promoted to engineer of construction on June 1, 1919. His title was changed to senior assistant engineer in May, 1920, and he became assistant chief engineer on November 1, 1931, holding this position until his death.

**Alex C. Johnson**, who retired on June 1, 1929, as vice-president in charge of traffic of the Chicago & North Western and of the Chicago, St. Paul, Minneapolis & Omaha, died at his winter home at Monrovia, Cal., on March 18. Mr. Johnson was born in Cochramton, Pa., on May 20, 1859, and was educated at Meadville college. He began his long service with the North Western in 1894 as a special agent; five years later he was made general agent for South Dakota; and in 1900 he was transferred to Winona, Minn., when his jurisdiction was enlarged to include Minnesota. After serving for a time as freight and passenger agent of the Pierre, Rapid City & Northwestern (now a part of the North Western), he was promoted in May, 1910, to the position of passenger traffic manager of the North Western at Chicago. He was appointed general traffic manager in 1916, holding this position until the railroads were taken over by the government, at which time he was made assistant traffic manager of the North Western and chairman of the Western Freight Traffic committee. When the railroads were returned to private control Mr. Johnson resumed the position of general traffic manager of the North Western, and was elected vice-president in charge of traffic on January 1, 1921, being elected also to a similar position on the Omaha in 1924.

**Victor K. Hendricks**, formerly federal chief engineer of the St. Louis-San Francisco and the Missouri-Kansas-Texas, died on March 19 at his home at Oak Park (Chicago), Ill., of pneumonia. Mr. Hendricks was born on May 28, 1869, and was a graduate of Rose Polytechnic Institute. He entered railway service in 1890 as a rodman on the Fairhaven & Southern, and during the following 13 years he served in engineering capacities with this company, the Bellingham Bay & Eastern (now part of the Northern Pacific), the Terre Haute & Indianapolis (now a part of the Pennsylvania), and the Terre Haute & Logans-

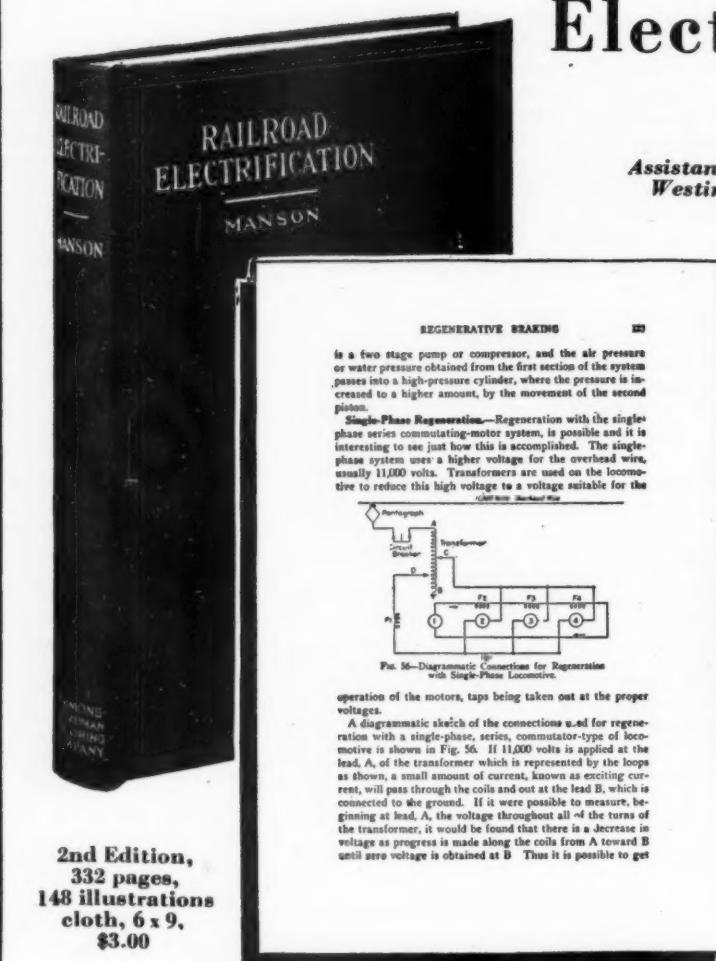
port (now also part of the Pennsylvania). At the end of this period he entered the service of the Baltimore & Ohio as assistant to the engineer maintenance of way, later becoming division engineer on this road at Baltimore, Md. On January 1, 1907, he entered the service of the Frisco as assistant engineer maintenance of way, later serving as office engineer and principal assistant engineer in charge of timber preservation, holding the latter position also with the Chicago & Eastern Illinois. On March 1, 1913, Mr. Hendricks was promoted to assistant chief engineer of the Frisco and in July, 1918, he was made federal chief engineer of this company and of the Missouri-Kansas-Texas. On February 1, 1919, he became assistant chief engineer of both these companies but shortly relinquished his connection with the Katy. From March 15, 1920, to March 1, 1921, Mr. Hendricks served successively as field engineer and regional engineer with the Southwestern region of the United States Railroad administration. At the end of this period he went to Chicago where he engaged in engineering work with various companies and organizations until his death.

**Edgar E. Calvin**, who retired on November 1, 1928, as vice-president in charge of operation of the Union Pacific system, died at Los Angeles, Cal., on March 17. He was born on October 16, 1858, at Indianapolis, Ind., and first entered railway service in 1873 at the age of 15 years as a messenger on the Indianapolis, Cincinnati & Lafayette (now part of the Cleveland, Cincinnati, Chicago & St. Louis). In 1877, he entered the service of the Union Pacific and served in various capacities until 1887, when he left the U. P. to become superintendent on the Missouri Pacific, returning to the former road in 1891, as superintendent of the Idaho division at Pocatello. From June, 1895, to March, 1897, he served as general superintendent of the International-Great Northern, then being appointed to a similar position on the Oregon Short Line (part of the Union Pacific System), of which line he became assistant general manager in May, 1903. A year later he was elected vice-president and general manager of the Oregon Railroad & Navigation Company (also part of the U. P. System), with headquarters at Portland, Ore. In February, 1905, Mr. Calvin became vice-president and general manager of the Southern Pacific lines west of El Paso, Tex., including those in California and Oregon, and in July, 1912, he was placed in general charge of construction and operation of those lines. Upon the segregation of the Union Pacific and the Southern Pacific in 1913, Mr. Calvin became vice-president and general manager of the Oregon Short Line, and two years later he was elected president of the Union Pacific and Oregon Short Line units of the U. P. System. After the period of federal control of the railroads, during which he served as federal manager of this system, Mr. Calvin was made vice-president in charge of operation. Following his retirement in 1928, he was elected secretary of the Calvin Supply Company, Los Angeles.

# Railroad Electrification and the Electric Locomotive

By Arthur J. Manson

Assistant Sales Manager, Transportation Department,  
Westinghouse Electric & Manufacturing Company



2nd Edition,  
332 pages,  
148 illustrations  
cloth, 6 x 9,  
\$3.00

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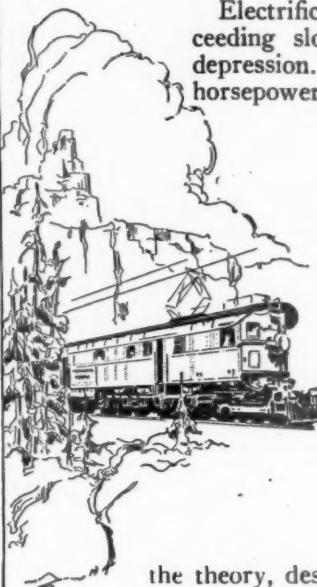
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By H. S. BRAUTIGAM

Formerly Chief Safety Inspector on the C. M. St. P. & P. Railroad



A practical manual of safety appliance laws, legal decisions, and Interstate Commerce Commission Orders and Interpretations covering the application of safety appliances to the motive power and rolling stock of steam railways in the United States. Information has also been inserted which, while not part of the Interstate Commerce Commission orders, represents practice which has been found to meet satisfactorily the intent of the law in doubtful cases. The text is supplemented by detailed sketches, including reproductions of the official drawings of the Bureau of Safety Specifications and of alternative types of construction which meet requirements.

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# The Year at a Glance

**FRIENDLY PRESIDENT:** In weighing the prospects for the railroad future—about which the business recession and rising wages and prices has raised many doubts—the leading editorial herein finds the attitude of President Roosevelt a source of encouragement. His declaration in favor of private ownership, it is believed, reflects a growing public opinion in support of the railroads' claim to reasonable prosperity—and is a favorable augury for public backing of a substantial rate increase.

**RAILROADS A HUGE MARKET:** The amount of capital and maintenance expenditures of the railways—due largely to inadequate net earnings—has averaged 1.6 billions a year less in the depression years than in the preceding period. This 1.6-billion falling-off, the leading editorial points out and several articles elaborate, is the railways' "contribution to depression." But the carriers will contribute to prosperity instead, if they are permitted net earnings which will make possible resumption of normal buying.

**CARLOADINGS:** Revenue carloadings for the entire year ran 5.6 per cent above 1936—the rapidly rising traffic of the first half of the year being not quite offset by the decline which developed in the last quarter.

**FREIGHT TRAFFIC:** Ton-miles in 1937 were 6.7 per cent above 1936.

**PASSENGER TRAFFIC:** Passenger-miles were 10.8 per cent ahead of 1936.

**OPERATING REVENUES:** Operating revenues were 3.3 per cent greater than in 1936, while operating expenses rose by 6.7 per cent.

**OPERATING NET:** Net railway operating income was 590 millions—a decline of 11.6 per cent under 1936, while net income (after fixed charges) totaled 85 millions, which was a decrease of 48½ per cent under 1936.

**NEW FINANCING:** The railways sold comparatively few issues of securities during the year—with the exception of equipment trust certificates. These latter are in unprecedented demand, so much so that an issue was sold during Christmas week at an interest cost of less than 1.95 per cent.

**BANKRUPTCIES:** No important bankrupt roads achieved reorganization during 1937, while three additional moderately-sized railroads had trustees appointed for them by the courts. The mileage in bankruptcy at the close of the year was 72,009—a net increase of about 300 miles over 1936.

**PAYING UNCLE SAM:** The railroads had by the end of November, 1937, repaid \$25 millions of the 738 millions they borrowed from the R.F.C. and the P.W.A., and the government had sold 106 millions

of railway securities to private investors, leaving net indebtedness of the railroads to the government of 407 millions. New borrowing from federal agencies during the year totaled 20 millions, and repayments 16 millions.

**RAILWAY PURCHASES:** The physical volume of railway purchases in 1937 exceeded that of the preceding year—but by a narrow margin. The dollar value of material received and equipment ordered from manufacturers was, however, materially higher than in 1936—being 846 millions, as against 749 millions in the preceding year.

**COSTS RISE:** Material costs rose by approximately 105 millions in 1937 over 1936. Fuel prices were up from 8 to 12 per cent, ties 13 per cent, rail 13 per cent and new equipment 10 per cent.

**CONSTRUCTION:** Construction activities of the railroads remained low in volume—148 miles of new track and about 11 miles of multiple tracking being laid. Grade crossing elimination reached an unprecedented volume, being fostered by public funds.

**ABANDONMENTS:** Miles of line abandoned totaled 1,140, being a considerable decrease from the 1,519-mile figure of 1936. The high point of abandonments, 1,995 miles, was reached in 1934 and since that date each year has had a decreasing total.

**LOCOMOTIVES:** 368 locomotives were ordered for service in the United States in 1937, as compared with 533 in 1936.

**FREIGHT CARS:** Orders for freight cars for U. S. service in 1937 totaled 52,738 (in 1936 the total was 67,544).

**PASSENGER CARS:** The largest volume of passenger train cars, viz. 829, was ordered in 1937 that has been placed in any year since 1929.

**NEW SIGNALING:** Signaling construction during the year showed an increase of 47 per cent over the preceding year, the activity in new automatic installations and in rebuilding interlockings being particularly marked.

**CANADA:** Our Ottawa correspondent estimates that the Canadian Pacific will earn a margin over its interest requirements for 1937, and that the Canadian National will have 8 millions of net to apply on its interest due the public. The recession in business does not appear to have been as deep in Canada as it has south of the border. A disturbing element in the Dominion's far-from-satisfactory railway situation is the refusal, thus far, to take any action toward regulating motor transport.

**CANADA EQUIPMENT:** The Canadian railways in 1937 ordered 57 locomotives, 7,397 freight cars and 99 passenger cars—exceeding the totals of any year since 1930.

**MEXICO:** The National Railways of Mexico in 1937 enjoyed the greatest volume of both freight and passenger traffic and gross revenues they have had in history. The lines went into full government ownership on June 23.

**WHEELER TO HELP:** Chairman Wheeler of the Senate Committee on Interstate Commerce, announced on December 24 that immediately after Congress convenes he would begin conferences with government officials, railway executives and representatives of investors in railway securities preparatory to the introduction of railway legislation of major importance. Senator Wheeler asserted that "the railroads of the United States are very sick and need immediate attention, not only in their own interest but also in the interest of the public, investors and labor. I expect within the very near future to confer with the President, with Jesse Jones and others."

**RATE INCREASE HOPE:** As the year ends, the outlook for the railroads for the immediate future seems to hinge almost entirely upon the rate increase case being currently presented to the Interstate Commerce Commission. Government officials have been outspoken in their hopes for some feasible method for increasing railway purchasing-and-employing power, and that swiftly. Opposition to an increase has been conspicuous by its relative ineffectiveness, which representatives of some of the biggest shipping interests who will have to "pay the freight" have been strongly favorable. Why this heartening, if rather belated, friendship going out now to the railways?

**RAILWAYS AND RECOVERY:** The answer to the question raised in the preceding paragraph, we believe, lies in the fact that the public is waking up to a realization that prosperous business and normal employment just cannot go along with a bankrupt railway industry. Too many people in this country depend for their business and jobs upon railroad ability to buy the things they sell—and if the railroads do not buy as much as they used to, then the American people are not going to have as many jobs and as much money to spend as they used to. These facts have existed for a long time. Why is it that, now at long last, the public is beginning to understand them—and to act accordingly? The obvious answer to that question lies in the efforts of those persons and agencies who have worked to arouse public understanding of this situation. In the first group of articles in this issue we endeavor to tell this story once more, graphically and succinctly, and with all the facts and figures brought up to date. We hope that the series may prove useful to those of our readers who are doing this vital "selling" job for the railroad industry.



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# The Week at a Glance

**CARLOADINGS:** Freight cars loaded in the week ended with Christmas day totaled 460 thousand, a decline of 18 per cent under 1936. For the year, loadings totaled almost 38 million cars, which was 5.4 per cent better than in 1936. Details are given in an article herein, which also includes a chart showing comparative loadings in 1937, 1936 and 1935.

**SOO LINE BANKRUPTCY:** On the last day of 1937 the Soo Line filed a petition for reorganization under the federal bankruptcy act in the federal court at Minneapolis, and the court set January 29 for a hearing on the appointment of trustees. An article herein sets forth some of the operating and financial problems which led to this action—primary among them being heavy bond maturities in the face of prolonged deficits.

**SERVICING "DAYLIGHTS":** At both Los Angeles and San Francisco the Southern Pacific has installed special service tracks to accommodate its "Daylight" trains. Each train is thoroughly washed and serviced every night so that it begins each "Daylight" journey spic and span in the morning. Facilities and methods employed in this modern servicing job—which more and more roads are facing as special train equipment multiplies—are described in an illustrated article herein.

**K.C.S. LOCOMOTIVES:** Ten of the largest 2-10-4's (in tractive force) yet to be built are in service on the Kansas City Southern, and are described in an illustrated article herein. Cylinder tractive force is 93,300 lb. and boiler pressure is 310 lb.

**BROOKE HEADS C. & O.:** The executive vice-president of the Chesapeake & Ohio, George D. Brooke, has succeeded to the presidency made vacant by the death of W. J. Harahan. An article herein gives an outline of the career of the new chief executive, significant facts about the great property he heads, and of the job which confronts the management which he leads.

**STOKERS REQUIRED:** The I.C.C. in a decision in which two Commissioners dissented, two did not participate and one concurred only in part, has ordered the railroads to equip 3,500 engines used in through service with automatic stokers. "Mother Hubbard" locomotives are excluded from the order.

**BUYERS' STRIKE:** The present recession in business—just as all that have gone before it—is the result of a "buyers' strike". This is shown in the leading editorial herein which analyzes freight car loadings throughout 1937, by classes of commodities, disclosing the extent to which not only "Big Business" but individual consumers also curtailed their buying because prices got too high for them. In the durable goods industries, where the decline

in buying has been most severe, it is shown that the curtailment has been due to the absence of a prospect for profit from increased expenditures. Moral homilies on what capital "ought to do", it is pointed out, are unavailing. It will go to work again—making jobs and prosperity—when and if the politicians and organized labor give it more reason for expecting profits than for fearing losses.

**CROSSING MISHAPS UP:** In September, 1937, a total of 161 persons lost their lives in grade crossing accidents—an increase of 42 per cent over that month in 1936. For the nine months, 1,305 persons were killed in crossing accidents—which was 14 per cent more than fatalities in the comparable period of 1936.

**RESEARCH HEADS:** Pursuant to the resignation of L. W. Wallace as director of engineering research for the A.A.R., the organization of the division has been re-arranged, with G. M. Magee, who, coming from the K.C.S., has for some months been assistant director of the division, being appointed civil engineer—engineering division, and W. I. Cantley, becoming mechanical engineer—mechanical division.

**MEDIATION BOARD REPORTS:** The National Mediation Board in its report to Congress reviews with considerable satisfaction its record for the year in settling disputes between the railroads and their organized employees—a record which, obviously, is a good one if the avoidance of open conflict is the sole standard of appraisal.

**MOTOR HOUR RULES:** The I.C.C. has, in general, adopted the hours-of-service rules proposed by Examiner Snow for common and contract motor carriers, which allow these employees to work up to 60 hours a week and to be on duty for as much as 15 hours out of 24. The rules become effective on July 1. The commission says that the rules are only a beginning, and are subject to modification if experience so indicates.

**TRAFFIC OUTLOOK:** In the first quarter of 1938, freight car loadings will be 8.3 per cent less than in the first quarter of 1937, according to the estimates of the Shippers' Advisory Boards. The Pacific, Atlantic and Northwest boards anticipate increased traffic and the Southwest, no change.

**HOLIDAY PASSENGER TRAFFIC:** Passenger traffic into and out of the New York metropolitan area proved rather disappointing to one or two roads, being lower than a year ago. Reports from the carriers entering the city, summarized in the news pages herein, indicate that on a number of lines coach travel was up while Pullman business fell off. Several companies however, reported traffic from 20 to 25 per cent above a year ago.

**NOVEMBER NET OFF:** In November net railway operating income totaled a little better than 32 millions—or considerably less than half that earned in November, 1936. Expenses last November were fractionally greater than in November, 1936, while revenues were more than 11 per cent lower.

**C.T.C. ON PENNSY:** Centralized traffic control of signals and switches at each end of a 4.5-mile stretch of "bottle neck" single track on the Renovo division of the Pennsylvania has replaced manual block operation and minimized delays. The installation is described in an illustrated article herein.

**I.C.C. REPORT:** In its annual report to Congress, summarized herein, the Interstate Commerce Commission states a general attitude toward rates—i.e., that they should yield a reasonable return, and that, if such a return is not possible in time of depression, then a more-than-reasonable return is needed in prosperous times. Denying that this attitude foretells what its decision will be in Ex Parte 123, the commission proceeds to warn that rate increases alone are no answer to railroad difficulties—and that, under competition, long-run policy must aim at increasing "salability of product" and lower prices.

**UP TO INVESTORS:** In an article in the January issue of "Business Digest", F. J. Lisman, an authority on railway finance, contends that railway investors (and institutional investors especially) could quickly secure from Congress the legislation needed to establish a sound transportation policy for the country, if they would stand shoulder to shoulder in demanding action. Transport is chaotic, in his view, because—while the welfare of the nation as a whole requires a sound, comprehensive policy toward transport—the only forces now being exerted on the formulation of policy are those put forth by pressure groups, each seeking its own special advantage. There is a thought here, maybe, for Senator Wheeler in the more constructive turn which, apparently, he wants to give to his inquiry into the railroads.

**HENRY WALLACE:** The Secretary of Agriculture made a speech at Pittsburgh this week which was largely crowded out of the newspapers by recent more spectacular addresses. Nevertheless, Mr. Wallace showed clearly his understanding of the harm done to labor and agriculture when capital is "scared", and Mr. Wallace is an important man. We call attention to this address because it is easy to become over-pessimistic regarding the outlook if one gives ear only to the economic nit-wits and professional haters in Washington, while overlooking the presence of some men high in government councils who are sane, moderate and of unimpeachable good will.

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ALLOY STEEL DIVISION . MASSILLON, O.

# The Week at a Glance

**CARLOADINGS:** In the week ended January 1 freight cars loaded totaled 457 thousand—down 22.3 per cent from the comparable week a year ago.

**THE THIRD "REBEL":** Photographs and a description of the G.M.&N.'s third "Rebel" streamliner appear elsewhere in this issue. Consisting of a power car and two sleeper-coaches, the third train will be operated between Mobile and Union, Miss., where it will be combined with the Jackson-New Orleans main line "Rebels".

**NOVEL SPAN MOVEMENT:** The Pennsylvania recently moved a 222-ft., 1000-ton bridge span across 4 high-speed electrified tracks near Newark, N. J., without interfering with traffic. An unusual problem was presented—but ingenuity solved it, and an illustrated article herein tells how.

**A 30-YEAR HANDICAP:** Prosperity is the result of a balance among prices of all branches of industry (and between labor and capital within individual industries) which enables all the branches and their employees to buy all the products of each. Freight rates, the leading editorial herein points out, have been out of balance with other prices ever since 1906, when effective rate regulation by the I.C.C. began. The proposed increase in freight rates would just about restore the 1906 relationship—and would prevent financial disaster to the railroads.

**LOCO INSPECTION:** The percentage of locomotives found defective by the Bureau of Locomotive Inspection during the last fiscal year was 12 per cent—the same ratio which obtained for the preceding three years. There was an increase of over 9 per cent, however, in the number of engines ordered from service because of defects which rendered them immediately unsafe. A summary of the Bureau's report will appear in an early issue.

**EX PARTE 123:** Southern shippers in opposing the proposed 15 per cent increase in freight rates last week reiterated the contention that Southern rates are already too high, and said, if a 15 per cent increase is allowed in other territories, Southern rates should be jacked up only 10 or 11 per cent. Higher divisions for Southern carriers on interline traffic were also favored. Western shippers also—from testimony heard at Chicago this week—seem to be somewhat less than unanimous in their enthusiasm for higher rates on their products.

**RIVER PORK BARREL:** That amiable spender of the people's substance, Major General Markham, chief of the army engineers, has reported that 100 millions for new work and 47 millions for maintenance "can be profitably expended" on rivers and harbors work during the coming fiscal year—profitably, we suppose

he means, to the shippers who will pocket this dole from the taxpayers and the contractors who do the work.

**SHORT TRAINS OR ELSE:** Assistant Grand Chief Engineer Corbett of the B. of L. E. told the House interstate commerce committee this week that the railroads had better concede organized labor's demand for short trains or the unions may come out for government ownership again. He also made a quaint contribution to logical deduction of the *post hoc, ergo propter hoc* brand. Citing a list of railway security prices over a 40-year period, he called attention to the fact that these prices were higher in the years when short trains predominated than they have been since longer trains have been the rule—hence, short trains must be profitable and long ones unprofitable. The same argument might be used, and with considerably better reason, if security prices were compared with hourly wage rates of railway employees.

**A RAZOR FOR JIM CROW?**: Congressman Mitchell (colored) from Chicago has introduced a bill to prohibit the "Jim Crowing" of passengers in interstate transportation. Specifically, under the bill, it would be unlawful to segregate passengers on the grounds of race, color or religion.

**RR. MAN IN LABOR POST:** Charles V. McLaughlin, vice-president of the B. of L. F. & E., has been named Assistant Secretary of Labor, succeeding Edward F. McGrady, who in the post won fame for himself as a conciliator and resigned to become an officer of the Radio Corporation of America.

**WHEELER RAPS I.C.C.:** The finance division of the I.C.C. has been violating "the common sense and spirit of the law" in some of the R.F.C. loans it has approved and needs "reorganizing", said Senator Wheeler in a public statement given out over last week-end. He criticized particularly the approval of a 6-million-dollar advance to the Erie (which it hasn't got yet) and 8 millions to the B. & O., and praised Commissioner Mahaffie for dissenting.

**GREEN HITS TRUCK HOURS:** William Green, president of the American Federation of Labor, does not like the I.C.C.'s prescription of a maximum 60-hour week and a 15-hour day for truck drivers—and said so in a letter a few days ago to Commissioner Eastman. Mr. Eastman in his reply explained that the law empowers the Commission to regulate these hours solely from a standpoint of safety, rather than upon economic or humanitarian grounds. He reminded Mr. Green that these regulations were only a beginning, and suggested that the labor organizations might appeal Division 5's decision to the whole Commission if they don't like it.

**WHY FORD QUIT:** Edsel Ford told Senator Wheeler's committee this week that Ford interests had sold the D.T.&I. because I.C.C. red tape prevented their making a lot of experiments they had in mind. If some of the other critics of the railroads would emulate Ford—and find out what the railroads are up against when they want to make innovations—probably criticism of this kind would disappear; or maybe a better-informed public would demand that senseless restrictions be diminished.

**POWER GEAR APPEAL:** The A.A.R. has asked the I.C.C. to modify its power reverse gear order—requiring installation when class 3 or heavier repairs are made—to call for application only when class 1 or 2 repairs are involved. The roads seek this relief to lighten their financial burden during the current year.

**COST PROBE COSTLY:** It is going to cost the taxpayers \$50,000 to indulge the curiosity of some members of the I.C.C. in the subject of railroad cost accounting. This was revealed in testimony presented by the Commission in support of its proposed appropriation for the next fiscal year. A largely increased appropriation for the Bureau of Motor Carriers was favored also because it is over two years behind in its work—it gets 400 applications for certificates a month and is able to pass on only 250 with its present staff.

**REVENUE AND JOBS:** More money for the railroads will make more jobs—so. President Pelley of the A.A.R. told the Senate Committee investigating unemployment on Wednesday of this week. If revenue and traffic turns upward, he added, the railroads will not only largely increase their purchases from outside industries (thus stimulating employment in them), but will re-employ thousands of furloughed railroaders too.

**CAR DEFECTS DOWN:** The Bureau of Safety found safety appliance defects in 2.6 per cent of the cars it inspected during the past fiscal year, as compared with almost 2.9 per cent in the preceding year. The Bureau's annual report, a summary of which we had to omit from this issue because of space limitations, notes a "decided upward trend" in train accidents.

**MAHAFFIE & LATIMER:** Commissioner Mahaffie and Retirement Board Member Murray Latimer have been re-appointed by the President and confirmed by the Senate—the former for a 6-year term and the latter for 5 years. No word is as yet forthcoming about reappointment of Commissioner McManamy whose term also has expired but who, under the law, continues in office until a successor is named. Last year a Commissioner served over six months after his term had expired before reappointment was forthcoming.



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Engine Bolts have one major function—to hold locomotive parts in accurate alignment. » » » Any measurable stretch starts looseness; misalignment of parts and maintenance costs mount up. » » » Agathon\* Alloy Engine Bolt Steel has high tensile strength and high resistance to vibration and shock. » » » It maintains all parts in proper relationship, which avoids undue wear and extends service life of bushings, bearings, pins and all other motion work parts. » » » It assures maximum service at the lowest possible cost. » » » There is an Agathon Alloy Steel for every locomotive part where strength, long wear and light weight are factors for economical service. Let our engineers give you complete information. Address Department RA, Republic Steel Corporation, General Offices: Cleveland, Ohio, Alloy Steel Division, Massillon, Ohio.



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# The Week at a Glance

**CARLOADINGS:** In the week ended January 8 cars loaded totaled 552 thousand, 21 per cent under last year.

**FIGURE LOVERS' FRIEND:** We refer to Luther Walter who proposed last week that the revenues from the proposed freight rate increase be pooled as follows: If a railroad earns more than 2½ per cent on its property investment and that amount is greater than 95 per cent of a 15 per cent increase, the 95 per cent accrues to the pool. If 95 per cent of a 15 per cent increase is greater than the excess over 2½ per cent, then only the amount of the excess accrues to the pool. Get it? Cross word puzzle experts and those who *like* to make out income tax returns will find further details in the report of the "Out-of-Town Hearings in the Freight Rate Case" elsewhere herein.

**ERIE SUCCUMBS:** After having weathered the great depression, the Erie this week found it necessary to apply for reorganization under the federal bankruptcy laws—which ought to give a rough idea of the extent to which higher wages, social security taxes and increased costs of materials have made the job of the railways in facing a traffic decline so much harder than it was four years ago.

**PAYING DEBTS PENALIZED:** Judge Fletcher of the A. A. R. this week asked the House Ways and Means Committee to put the railroads in the same category as it has placed banks and insurance companies in the proposed new tax law, namely, to exempt them from the 4 per cent penalty tax on earnings not paid out. It is tough going when the government, which presumably wishes to stimulate employment, penalizes the use of earnings to make needed improvements, which would provide many jobs; and, further, when it encourages corporations not to pay their debts, by levying penalty taxation on earnings used for this purpose.

**HENRY WALLACE:** We said a few kind words about the Secretary of Agriculture on this page a couple of weeks ago, and he has repaid us by appearing before the I. C. C. and testifying against the proposed increase in freight rates. The honorable gentleman's heart is in the right place, but that doesn't give validity to his economic analysis. If his interest is truly in "flexible" freight rates—and not just lower rates—then why wasn't he testifying to that effect at the end of 1936 when the general price level was rising and the I. C. C. decreed a freight rate reduction?

**EARLE SEEKS A SANTY:** The Governor of Pennsylvania appeared before the I. C. C. rate increase hearing in Washington this week and did a little public agonizing in behalf of the anthracite industry. Freight rate reductions, he believes, are the cure needed for this industry's loss of 46 per cent of its tonnage.

His Excellency was discretely silent about the part played by fancy union wages in keeping hard coal in the mines rather than putting it in householders' cellars. A couple of days later, in Harrisburg, he came out for government ownership of the anthracite mines.

**ANOTHER U. P. "CHALLENGE":** Winter sports enthusiasts who are not in the big money have found a friend in the Union Pacific which has opened the Challenger Inn at Sun Valley to cater to the middle bracket incomes. Complete facilities for both winter and summer fun are provided for 400 customers in a "Swiss Village" development which is true to type down to a "weinstube"—details in an illustrated article herein.

**SAFETY, NOT JOBS:** Vice-president Johnson of the O. R. C., testifying before the House Interstate Commerce committee this week, said that *he did not ask passage of the train limit bill in order to make more jobs, but solely because of its contribution to safety.* Pretty important—because if the labor organizations can make a case for this bill on the grounds of safety alone, they are smarter even than we think they are, which is pretty smart. J. A. Farquharson for the B. of R. T., however, did refer to the jobs lost on account of long trains.

**CAMEL CARAVANS IN TEX.:** Representative Boren of Oklahoma questioned Mr. Johnson on his objection to long trains because hand signals are hard to make out, asking him how many accidents had occurred because of this difficulty. When Mr. Johnson was unable to cite any, Mr. Boren went on to tell of a Texas law prohibiting camel caravans from moving down the main street of a town. He said that, in the event that there are no camel caravans, this law is meaningless—but no more so than a law to limit trains in order to make hand signals understandable in the interest of safety if, in fact, there is no evidence of accidents from misunderstood signals.

**DECEMBER GROSS OFF 20%:** Preliminary reports from roads with 83 per cent of operating revenues indicate that gross revenues were down 19.6 per cent in December over those of that month in 1936. Passenger business was still ahead of December, 1936, (by about 2 per cent), but freight revenues were almost 23 per cent lower.

**N. Y. INLAND STATION:** The off-line joint I. C. I. freight station operated in New York in premises owned by the Port of New York Authority handled 16 million lb. of merchandise freight last October, its top business so far and a fitting celebration of its fifth anniversary. An illustrated article in the Motor Transport Section herein describes the operation of this facility and tells how it has grown.

**HOLDING COMPANIES HIT:** President Roosevelt at Friday's press conference last week took another crack at his favorite punching bag, the holding companies. He did not limit himself to those in the utility field, nor did he distinguish from "good" holding companies and "bad" ones. He did not, however, define a holding company. If he means companies which hold securities and have no other function, that is one thing. If, however, he includes any company that holds the securities of any other company regardless of the fact that its primary function is operation—Ouch!

**JOBS DECLINE AGAIN:** Railway employment at the middle of December totaled 1,008 thousand—down 6.8 per cent under December, 1936, and about 5 per cent lower than in mid-November, 1937. Maintenance of way forces suffered the most—their decline being 9.7 per cent from mid-November.

**C. & E. I. MOTOR TRAINS:** The Chicago & Eastern Illinois reports an increase of 25 per cent in the number of passengers carried since the installation of its one-car, light-weight, high-speed motor "trains" in Southern Illinois, as compared with the same period a year ago.

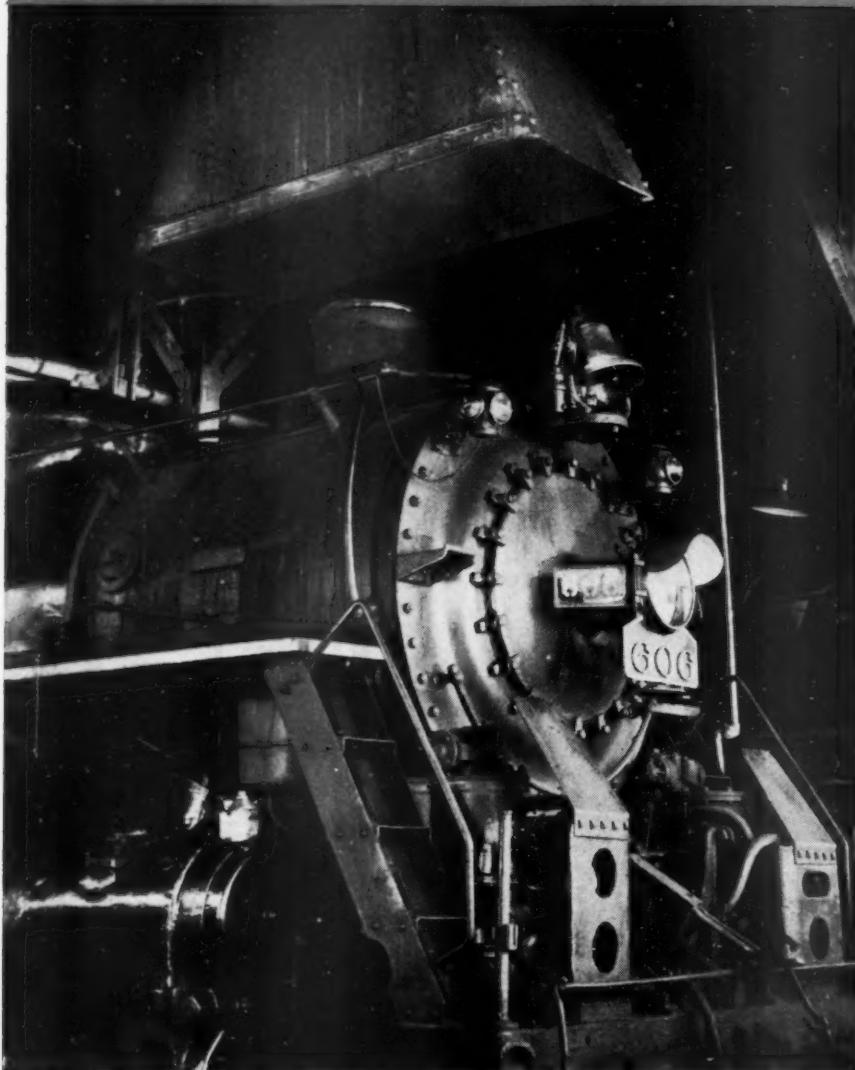
**SAVING ACCOUNTING \$:** A plan of interline freight accounting developed by the Southern Railway, which preserves the calculations made on one freight bill and uses them again when a similar movement is made, is described herein in a paper by Noah Garner, auditor of freight accounts. The paper was presented at one of the recent regional meetings of accounting officers sponsored by the accounting division of the A. A. R.—which meetings are perhaps the greatest forward step taken in many a year to develop the highest professional standards in this important phase of railway work.

**DO LOW RATES BUILD TRAFFIC?** Some theoretical critics of the railways claim that higher freight rates curtail traffic, and that lower rates stimulate it. Well—rates were reduced last year and are still reduced, and freight revenues in December, 1937, were almost 23 per cent less than in December, 1936. What is wrong with the theorists' theory—simply the observable fact that it is *favorable prices at destination which stimulate freight traffic*, not low freight rates per se. The leading editorial article herein analyzes this situation, showing that attractive prices at destination are the only genuine stimulus to production and freight traffic. Such prices in the latter part of 1937 were *not* attractive to purchasers despite a reduction in freight rates. Conversely (freight rates being only about 7 per cent of delivered commodity prices), it is just as feasible to have prices which will move traffic, with rates increased, as it is to have prices which will curtail traffic, with rates decreased.

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BOTH SIDES

CONSTANTLY!



Inside is smoke, soot, cinders driven like a sand blast by the exhaust steam and condensate; outside is whatever the Weather Gods decree—hot and dry or sleet and cold. Smoke jacks to live a reasonable life must be highly resistant to corrosion, able to withstand shock. » » » Toncan\* Iron, in unusually large measure, possesses such characteristics. » » » An alloy of copper, molybdenum and open hearth iron, Toncan\* Iron gives unusually long economical service in smoke jacks, roofing, side walls, ducts or piping—wherever corrosion-resistance is a factor. » » » May we send you further information. Address Department RA. Republic Steel Corporation, General Offices, Cleveland, Ohio. » » » » »

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# The Week at a Glance

**CARLOADINGS OFF LESS:** The total of freight cars loaded in the January 15 week was 580 thousand, down 16.6 per cent from the comparable week in 1937 (in the preceding week the 1937 comparison was down 22.3 per cent).

**FARQUHARSON TESTIFIES:** The principal witness this week in the train limit bill hearings, reported herein, has been J. A. Farquharson of the B. of R. T., who has presented individual trainmen to give evidence of danger and damage encountered by them because of the length of trains.

**NOT ALL HOLDING COS.:** After having conveyed the impression to his newspaper interviewers that he sought the destruction of all holding companies, President Roosevelt last week clarified his views by citing the Pennsylvania Railroad as a type of holding company to which he did *not* object. The operating company which holds stock of other companies only incidentally is apparently not down for the "death sentence."

**DERAILMENT AT BRIDGE:** A brief summary of the Bureau of Safety's report of its investigation into the derailment at Bluefield, Va., on November 20 is published herein. A 4-foot lateral movement of adjoining ends of two girder spans was disclosed following this accident, in which two lives were lost. The major part of this displacement, if not all of it, was a result, rather than a cause, of the derailment; but the Bureau believes it probable that the derailment was caused by a slight distortion of the bridge, or the alinement of the track on the bridge.

**200 NEW COACHES:** The New Haven appears likely to hold its lead as the road with the largest fleet of streamlined coaches, its trustees having sought court permission to purchase 50 additional passenger cars of this type, to be added to the 150 it already has in service. The equipment market is showing signs of life, as a glance at the "Equipment and Supplies" column in this issue will show—no boom, to be sure, but no famine either.

**ACCIDENTS UP:** Fatalities on the railroads from all causes and to all classes of persons totaled 4,580 in the first 10 months of 1937, according to the summary issued by the I. C. C. and published herein, being an increase of 5 per cent over the first 10 months of 1936. Persons injured totaled 31,259—up 10 per cent over 1936.

**BAD ACCOUNTING:** Unsound accounting requirements were named by President Clement of the P. R. R. as among the causes of present railway difficulties in an address before the Chicago Traffic Club last week, which is reported herein. Improvements which have no earning power, he contended, should not be capitalized, but should be charged to

operating expenses. The P. R. R.'s "investment" in grade crossing elimination, he said, equals one-third its entire capital structure, and 70 per cent of the amount of its bonded indebtedness. Grade separations to eliminate crossing hazards can be constructed at \$50,000 apiece, whereas those designed primarily to expedite highway traffic cost from \$200,000 to \$500,000; such eliminations are part of highway plant, not that of railroads, and should neither be paid for by the railroads nor allowed to appear in the railway investment account. President Clement does not make many addresses, but when he does, he says a plenty—as his Chicago Traffic Club address amply proves.

**C. G. W. PLAN:** Examiner Kirby of the I. C. C. has recommended a plan of reorganization for the Great Western which would eliminate the present common stockholders from participation. Total capitalization would be 62 millions—36 in stock and 26 in bonds. Fixed charges, including rents, would be 1.7 millions. The plan would reduce the company's capitalization by 76 millions.

**SAVINGS BANK BILL:** The present "moratorium" on earnings requirements necessary to make railroad securities legal investments for savings banks in New York State would be ended if a bill introduced by State Senator McCall becomes a law. His bill would permit purchases to be made only if the railroad has earned at least its fixed charges in 5 out of 6 consecutive years, one of which must be the year immediately preceding purchase.

**TO STREAMLINE "400"?**: The Chicago & North Western is considering re-equipping its high-speed, Chicago-Twin Cities train, the "400", replacing the present standard cars and locomotives with new streamlined designs. Inquiries have been issued for 12 passenger cars and 3 locomotives—bidders being asked to quote on conventional steam, Diesel-electric and turbo-electric power.

**STOCKHOLDERS THE GOATS:** Nobody any more pays any attention to the interest of the stockholders in the railroads. "Production for use and not for profit," the goal of the Socialists, has virtually been achieved in the railroad industry. The leading editorial herein analyzes the position of the railway owner, showing that net income in the past seven years has averaged only 47 cents annually per share of stock, while taxes of \$3.54 per share have been paid. The taxing authorities have received 7½ times as much from the railways as they have earned for their owners. Railway managements, the editorial further states, have demonstrated their inability to protect unaided the interests of their employers; and consequently they should assist in organizing the latter to enable them to defend themselves.

**DRUMMERS' DALY:** J. G. Daly, appearing in behalf of the Commercial Travelers in opposition to the proposed hike in Eastern coach fares, made some pungently critical observations. He suggested that the reason the Eastern roads did not offer round-trip rates was because "a passenger who went one way on their roads would not desire to return over the same road." He also said that the drummer is a "social animal" and doesn't like to travel alone—hence the opposition to a rate increase which, Mr. Daly believes, will drive business away.

**100 YEARS OF PICKLING:** At the convention of the Wood Preservers last week (reported herein), President Duncan (superintendent timber preservation of the Q) called attention to the fact that timber preservation by injecting tar and other chemicals under pressure is now 100 years old. Pre-framing of timbers before treatment was discussed by C. J. Geyer, engineer maintenance of way of the C. & O. and Chief Engineer R. H. Ford of the R. I. analyzed that road's experience with treated ties, which he estimates are saving over 2½ million dollars annually.

**U. P. STREAMLINERS:** The new 14-car streamliners of the Union Pacific and the Chicago & North Western, "City of Los Angeles" and "City of San Francisco," which went into regular service several weeks ago are described in detail—including their 5400 hp. three-unit Diesel locomotives—in an illustrated article herein. These trains are characterized as "the largest, most powerful and finest-appointed streamline trains yet constructed." Of particular interest is the wide variety of Pullman accommodations available—regular sections, roomettes, bedrooms (some double-deckers), duplex rooms, compartments and drawing rooms.

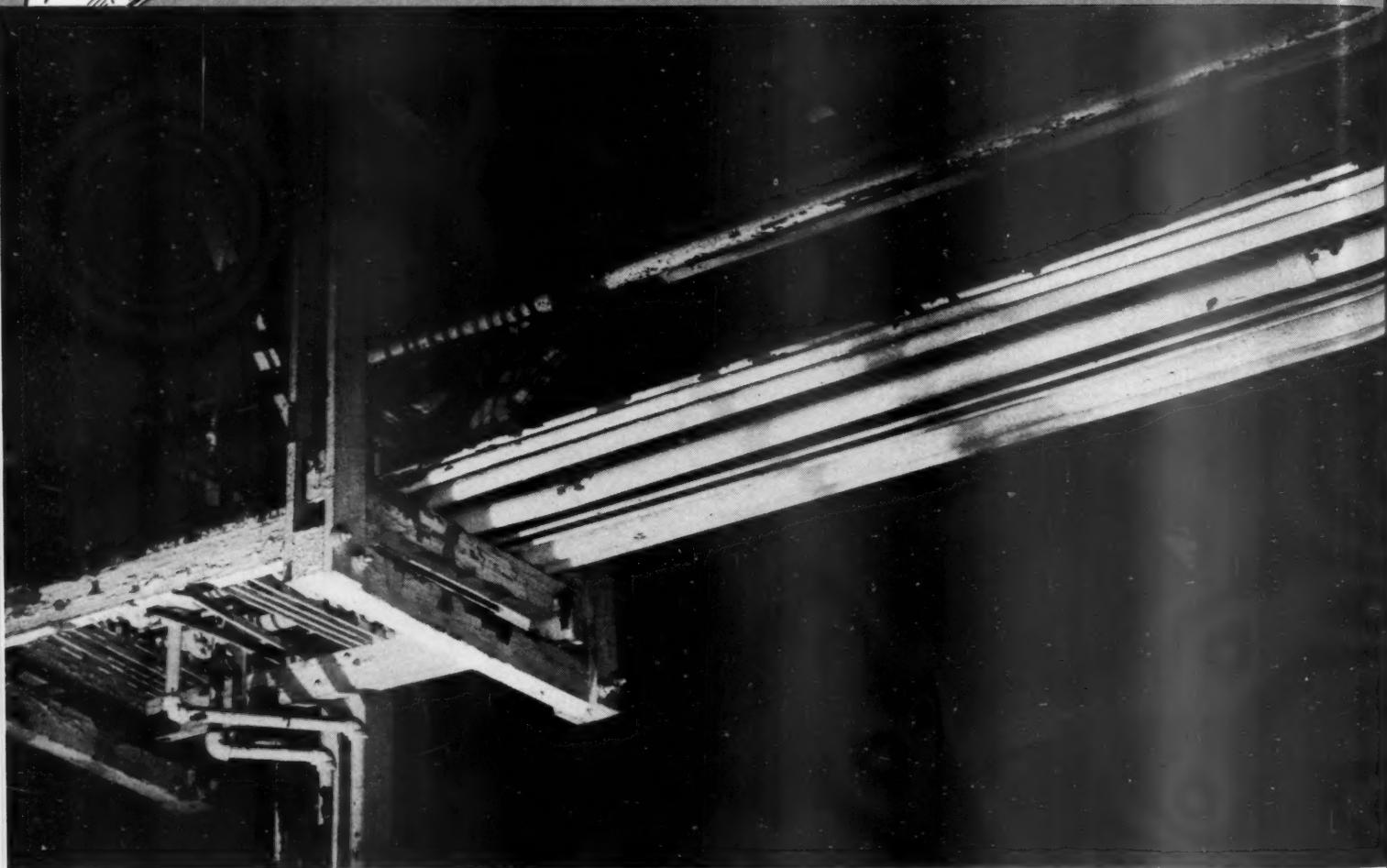
**RATE HEARINGS END:** The hearings in Ex Parte 123, the railroads' petition for an increase in freight rates and Eastern coach fares, were concluded at Washington on January 24—a goal achieved by holding two or three sessions simultaneously.

**TRUCK TRAFFIC DOWN:** Movement of freight by truck was down 15½ per cent in December under the volume handled in December, 1936, according to statistics compiled by the American Trucking Associations. The biggest declines occurred in automobiles (down 34 per cent) iron and steel (down 49 per cent) and textiles (down 38 per cent).

**CROSSING CRACKUPS RISE:** 214 persons were killed in grade crossing accidents last October, which was an increase of 33 per cent over September and 20 per cent over October, 1936. Total accidents at grade crossings in the first 10 months of 1937 were 3,585 with fatalities at 1,519, an increase over 1936 of 10 per cent in accidents and of 15 per cent in fatalities.



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Pipe itself is relatively cheap—there is but little difference in price per foot between the cheapest and the best. » » » But pipe in place is a different matter. » » » Buried in cinders; under the rafters; in tight corners, pipe is nearly always in inaccessible places and hard to get at. » » » Therefore, pipe economy in roundhouse, yard and shop is largely a matter of using material that will withstand corrosion. » » » Toncan\* Iron Pipe, an alloy of copper, molybdenum and

open hearth iron, is highly resistant to the corrosive action of smoke, sulphurous gases, cinders and oxygenated water. It gives prolonged life where steel requires early replacement. » » » In addition to Toncan Iron Pipe Republic makes steel pipe and is in position to furnish a pipe to meet economically all of your requirements. Address Department RA. Republic Steel Corporation, General Offices: Cleveland, Ohio. » » » » » » » » » \*Reg. U. S. Pat. Off.

# REPUBLIC STEEL

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# The Week at a Glance

**CARLOADINGS:** The January 22 week's loadings totaled 570 thousand, down 14.3 per cent under last year. In the week before the deficiency under a year ago was 16.6 per cent and, in the week before that, 22.3 per cent.

**DEMONS NOT TO BLAME:** Senator Wheeler over last week-end issued a statement in which he indicated that railway difficulties were far too numerous and severe to be laid to a few abuses of power which his committee investigation has uncovered. The Senator thinks some far-reaching legislative remedies are necessary, and is inclined to favor reducing bond interest and competitive services. He doesn't think a rate increase will help much. The leading editorial herein comments on the problem with which the Senator is faced—and wishes him well.

**SHOCKS AND SHORT TRAINS:** Shorter trains, if required by passage of the train limit bill, would increase rather than decrease "shock accidents", the only hazard which the bill is designed to curtail—according to the statement of J. Carter Fort, general solicitor of the A. A. R. at the House Interstate Commerce Committee's hearing on the train limit bill this week. By reducing the number of cars per train, the number of trains would be increased, Mr. Fort contended; and hence the necessity for starts and stops would also increase, with an increase in the number of train shocks arising therefrom. Mr. Fort's appearance was a curtain raiser to the presentation of the railroad side of the controversy regarding this bill, which will involve the testimony of many expert witnesses.

**"APACHE" ABANDONED:** The "Apache", the Rock Island-Southern Pacific tourist sleeper and coach train between Chicago and Los Angeles, will be discontinued on February 13, and its tourist cars and coaches will be handled on the Golden State Limited, which will thereafter have a morning rather than an evening departure from Chicago. On the same date, the "Rocket", being operated between Kansas City and Denver, will be withdrawn and placed in round-trip daily service between Kansas City and Oklahoma City.

**100 ARGUMENTS:** The reason why rate cases in America take so much time—in contrast with England—cannot be laid entirely at the door of the I. C. C. The greater fondness of interested citizens on this side of the Atlantic to make their views vocal in such causes must be taken into account. Oral argument in the Ex Parte 123 case opened in Washington this week, and there are over 100 lawyers who will have their say in the nine days set aside for oratory. A North Dakota jurist maintained that the revenue needs of the railroads were no legal reason for rate increases. John Benton of the State Utility Commissioners' Association accused the railroads and truckers

of a "conspiracy" and advocated consolidation instead of a rate boost. Further details are given herein in a report by our Washington Editor.

**QUININE OR A COP?**: Is the sickness of the railroads an internal malady, like malaria, or is it external, like a man being set upon by a gang of thugs? That is a pretty important question, because quinine wouldn't do the man attacked by thugs much good—when what he needs is police protection. From November, 1932, to November, 1937, railway taxes increased 35 per cent, wages increased 38 per cent, revenue per ton-mile decreased 10 per cent. Do these symptoms look like "internal" trouble, which can be cured by "consolidation" or increased operating efficiency?—the leading editorial herein asks. Or do these facts not make it plain that the railways' difficulties originate largely from the "outside", and hence can be cured only by restraining these "outside" influences which have driven them into a corner?

**THEY KNOW BETTER:** Miss Dorothy Thompson in her syndicated newspaper column on Wednesday of this week pointed to the sorry plight of France, which is ascribed to the operation of "certain economic sophistries". Specifically she refers to the so-called "purchasing power theory," which maintains that shortened hours and higher wages will make everybody rich—regardless of whether few or many get jobs at such wages and hours, or whether total production is increased or not. Miss Thompson says that this fallacious theory has been "sold" to the French workmen by demagogic leaders, *who know better*; and now the workers cannot be controlled in pursuing a ruinous policy which is injuring their own welfare and threatens the downfall of French democracy. The French may be a funny race, as the old song says, but they have no monopoly on this kind of deception of working people by demagogic labor leaders and politicians.

**TRAFFIC RISE PREDICTED:** The Atlantic Shippers' Advisory Board meeting in Philadelphia last week predicted an *increase* of about 4 per cent in carloadings in the board's territory in the first quarter of 1938 over that of last year. The board based its optimistic outlook on largely increased coal and coke loadings, it being expected that most classifications would register declines.

**F. D. R. FRIEND OF RR'S:** W. A. Harriman, chairman of the board of the Union Pacific, addressing the Bond Club of New York last week stated that he and "many railroad men feel that the President of the United States is perhaps the best friend the railroads have." Mr. Harriman added that not in a period of 30 years had there been a better feeling toward the railroads than that which exists today; and he suggested that businesses might well consider maintaining their executive offices in local communities, rather than concentrating them in large centers such as New York.

**LONGER HOURS FOR LOCOS:** Of two groups of locomotives exactly alike, except that one group has cast beds and roller bearings while the other has built-up frames and plain bearings, the former group has 42 per cent more availability than the latter, due to greater freedom from maintenance. This was one of the striking accomplishments of developments in steel castings enumerated by William H. Sheehan in a recent address which is reported herein. Among other improvements in railroad performance mentioned to which modern castings contribute are: Locomotive designing to minimize track stresses and to provide stream "styling" which is also "functional"; easier riding trucks; safer tenders of larger capacity; freight car underframes which are "almost indestructible." Annual locomotive mileage used to be 20 to 50 thousand; now bed-equipped engines make 100 to 150 thousand, and 200 to 300 thousand miles are "in sight."

**BEAUTIFUL BRIDGES:** Grade crossing projects have gone architectural, not to say "landscaped." Some highway projects of a boulevard character have in recent years been built to please the eye as well as the motorists' desire for speed—and grade crossing eliminations have been "streamlined" in keeping with the other parts of such projects. One such improvement has been built involving a crossing by the Toledo Terminal of the Anthony Wayne highway, and is described in an illustrated article herein. Not only is the structure one of esthetic merit, but it showed a saving in construction cost over alternative designs.

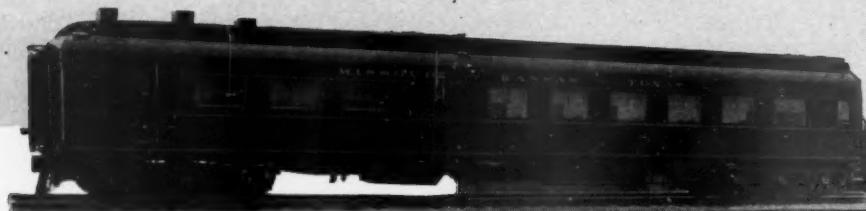
**"ENGINEER JOE HOGAN":** A striking photographic study of a locomotive engineer at work with his oil can is reproduced in a full page illustration herein. If other amateur photographers who have taken striking shots of railroad subjects are interested in seeing their work in print, they will receive an attentive hearing if they will address the Managing Editor, *Railway Age*, 30 Church street, New York.

**FIGHT FUEL HIKE:** The A. A. R. and the Short Line Association have gone to court against the orders of the Guffey Coal Commission which boosts the price of locomotive fuel 20 cents a ton. The railroads contend that the Commission hoisted these prices without giving the railroads a chance to produce facts and arguments as to what fair prices for locomotive fuel should be. The court is asked to annul the orders, and to stay their effective date pending final decision.

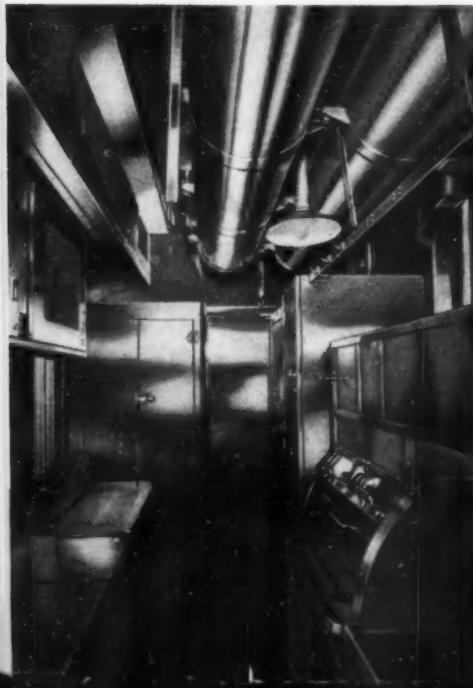
**N. H. HAULS TRUCKS:** Since the middle of December the New Haven has had in effect tariffs providing for the hauling of loaded and empty highway trailers on flat cars in overnight service between New York and Boston. Details are given in a short article in the news pages herein. The service is reported to be growing steadily in popularity.

# MODERN DINING CARS

...for the Missouri-Kansas-Texas



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# The Week at a Glance

**CARLOADINGS:** In the January 29 week freight car loadings totaled 553 thousand, a decrease of 15 per cent under last year.

**O'CONNOR INVITES:** Congressman John J. O'Connor, chairman of the House Rules Committee, invited the Washington Transportation Club to come to the Capitol if they desire constructive legislation—hinting broadly that the solution, if any, to current railroad problems will emanate from the Capitol rather than the White House. He was followed at the microphone by Senator Wheeler who said: "Chairman O'Connor invites you to the Capitol. I subpoena you there."

**EX PARTE 123:** Judge Fletcher of the A. A. R. closed the railroads' case in the freight rate inquiry on February 9 by presenting his argument in rebuttal of the contention of counsel opposing the increase. The railroad brief in support of the "15 per cent" freight rate increase was filed with the I. C. C. at about the same time. One of the commissioners has stated that he found the arguments "interesting in the extreme"—and, certainly, if diversity of viewpoint makes for that quality, then there should be no lack of it, as the summary of the proceedings, published herein, bears witness.

**TRAIN LIMIT:** Even if the 70-car-limit bill should prevent all the accidents in the caboose which its proponents claim, nevertheless the reduction would be small when compared with the *increase* in casualties which would occur at highway grade crossings from running a larger number of trains. This was the testimony of J. J. Sullivan of the S. P. at the hearing in Washington this week. Mr. Sullivan stated that, based on 1936 traffic, the train-limit bill would increase train-miles by 60 million; and probably would increase grade crossing casualties by about 400 per year.

**13 STREAMLINERS:** From Washington's Birthday on the Santa Fe will have in operation 13 streamlined trains. All cars will be of light-weight construction. Six of the trains will be "Chiefs" (each with 12 cars and a steam locomotive). The new "Super Chief" will have nine cars and a Diesel-electric locomotive. Two "El Capitans" and one "San Diegan" will each have five cars and a Diesel-electric locomotive. Two new Kansas City-Chicago trains will each have seven cars and a Diesel-electric locomotive. One Diesel-powered "Super Chief" is already in service. The new trains give the Santa Fe a total of 151 light-weight steel cars, and permit it to claim "the largest fleet of ultra-modern, light-weight streamlined trains in the world."

**LAID OFF, STILL "EMPLOYEES":** The Nashville, Chattanooga & St. Louis has filed a petition with the Supreme Court for review of a decision by the Circuit Court which upheld the National Media-

tion Board in a finding that furloughed employees were entitled to vote in an election to determine the bargaining agent to represent shop crafts employees. The railroad contends that furloughed employees are not entitled to vote on such a question, and also questions the ruling of the board that eligible employees not voting are assumed to assent to the will of the majority.

**R. R. PROBLEM NATIONAL:** Messrs. Wheeler and Lea have an opportunity, which comes only once in a generation, to deal with the transportation problem in a constructive manner, assuming a leadership such as Esch and Cummins did in 1920—this is the assertion of the leading editorial herein. The problem is a national one, because the question to be decided will determine whether the general standard of living in America is to rise or decline. The national welfare—and not the conflicting contentions of parties at interest—should be the starting point in drafting legislation, special interests to be given an opportunity to present their views later on.

**WHEELER PRESCRIBES:** Chairman Wheeler of the Senate Committee on Interstate Commerce told the Washington Transportation Club on Tuesday this week what legislation he thinks the railroads need to get them out of difficulties. He advocates competitive bidding for railway equipment and supplies and competitive bidding by bankers for security issues. He wants the bankruptcy act amended to expedite re-organizations. He gave qualified approval to consolidations, but wants to make sure that bankers make no profits from such moves. His address is summarized on another page herein.

**OTTO BEYER TO TALK:** The chairman of the National Mediation Board—well known heretofore for his activity in connection with union-management co-operation on the railroads—will address the New York Railroad Club on February 18 on the subject of "Railroad Labor Relations Today."

**RRs. EARN 2.27%:** Net railway operating income in 1937 totaled 590 millions, as compared with 667 millions in 1936—and the rate of return averaged 2.27 per cent. Reflecting the sharp downward trend of earnings in the last few months of the year, net railway operating income in December was only 26 millions (rate of return 1.63 per cent), as compared with almost 71 millions in December, 1936.

**CAR BODY "FLOATS":** A passenger car body which is, in effect, suspended from the trucks, floating on soft vertical coil springs in a plane above the body's center of gravity, is being tested on the Santa Fe in the Los Angeles area. The design, called a "pendulum" type, is the work of C. T. Hill, grandson of the late James J. Hill, and is described in an illustrated article herein.

**ANOTHER ALERT JOE:** Railroaders, accustomed to the quick wit of one governmental official named Joe with whom they have had many dealings, may one of these days have another Joe cross their path. Joseph P. Kennedy, the retiring chairman of the Maritime Commission, testified recently as to methods of strengthening the merchant marine; and one idea he expressed in this connection was to remove the clause in the Panama Canal act which prohibits railways from operating coastal and intercoastal shipping. He thinks that people who "think as fast" as some of the railroads might make money out of shipping.

**UNUSUAL COMBINATION:** The Canadian National has ordered 10 cafe-sleeping cars, each car combining berths for 18 passengers and restaurant accommodations which will seat 16 people. In addition, 6 new dining cars have been ordered, to be constructed of alloy steel with a weight saving of 10 tons per car.

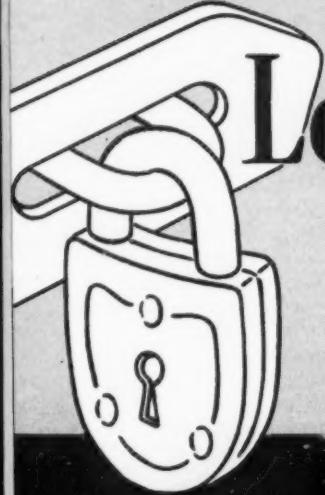
**DEFICIT IN NOVEMBER:** After allowing for fixed charges the railroads in November were "in the red" by more than 6½ million dollars. In November, 1936, net income after fixed charges totaled 30 millions. For the first 11 months of 1937, net income was 91 millions, as compared with 120 millions in the same period of 1936.

**S. F. STRENGTHENS BRIDGE:** Erection of a new truss outside each old one was the method the Santa Fe adopted to strengthen a three-span bridge near Granbury, Tex., in an improvement project involving several novel features, which are described in an illustrated article herein.

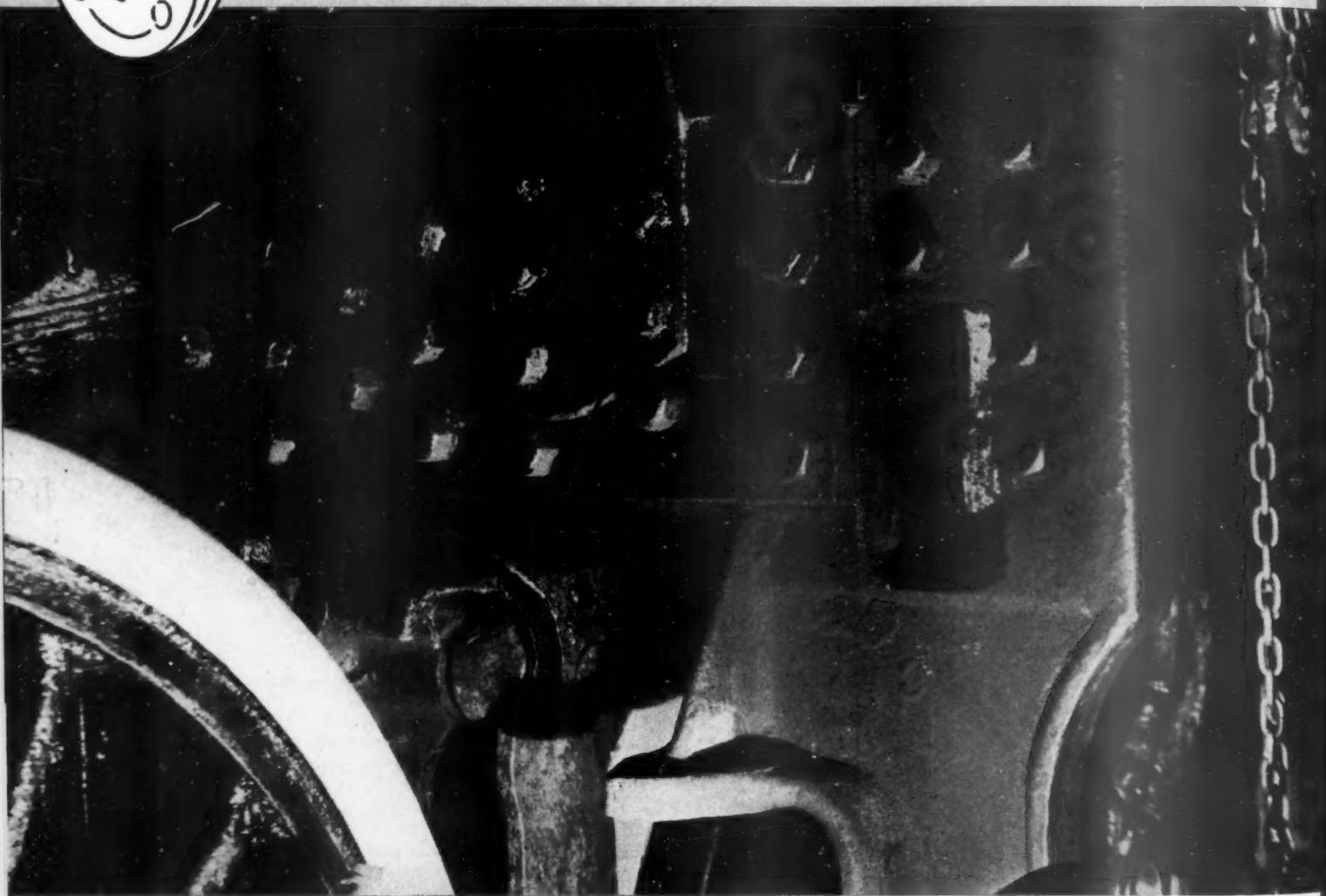
**EMPLOYEES DEFEND RR's.:** In Illinois the firemen's, the telegraphers', the trainmen's and the signalmen's labor organizations appeared last week before a committee of the Legislature and urged that truck fees be increased to cover their proportionate share of highway costs. The organizations advocated further that truck operators be required to provide insurance protection, that drivers' hours be limited to 8 per day, that highway equipment be given mechanical inspection periodically, and that fair rates for truck service be fixed by state authorities.

**PARLEY POSTPONED:** The President on Tuesday of this week indicated to the press that the "conference" (mostly government officials), which was named by Chairman Splawn of the I. C. C. to study railroad difficulties to see what legislation may be required, will probably not get into action until after the I. C. C. has handed down its decision in Ex Parte 123.

**TO PROBE A. A. R.:** Senator Wheeler's investigating committee will pry either into the affairs of the A. A. R. or of the Wabash when it resumes its activities the latter part of next week.



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# The Week at a Glance

**CARLOADINGS:** In the February 5 week revenue freight loadings totaled 565 thousand cars, 16 per cent under the comparable 1937 week. •

**CONCRETE TRACK:** Failure of rail fastenings was responsible for the derailment last December on the Pere Marquette's stretch of experimental slab-supported track. An illustrated article herein analyzes the Bureau of Safety report of its investigation of this accident. •

**JANUARY REVENUES:** Railroads with 84 per cent of total revenues in January reported gross revenues 16.4 per cent lower than in January last year. Passenger revenues were up 0.5 per cent and freight revenues were down 19.6 per cent. By territories the Eastern lines' revenues were 20 per cent off, the Southern lines 8.1 per cent and the Western lines 13.1 per cent. Passenger revenues held better on the Eastern lines than elsewhere, showing almost a 2 per cent improvement, whereas, in the West and South, fractional decreases were recorded. •

**D. L.'s NEW ENGINES:** An illustrated article herein describes the Lackawanna's 5 new 4-6-4 locomotives, which have the highest cylinder tractive force of any power of this type yet built. •

**NOVEMBER ACCIDENTS:** There was a big falling off of accidents in November in comparison with November, 1936. Train accidents totaled 588, down 14 per cent from November, 1936. Total fatalities were 388, down 17 per cent. Unfortunately, however, 3 passengers were killed in train accidents—these being the first fatalities in this category to be reported during 1937. •

**INVESTORS UNITE!** In an open letter to Chairman Jesse Jones of the RFC and the heads of more than a dozen insurance companies, savings banks and endowed universities, F. J. Lisman has reminded them that they hold one-third of outstanding railroad bonds, and that they have a responsibility to assume leadership in steps necessary to restore some measure of profitability to the railroads. He recommends, among other things, that "obsolete" labor rules be scrapped, that consolidations be undertaken on a large scale and that the federal bankruptcy act be revised. •

**S. C. TRUCK CASE:** The decision of the Supreme Court in the South Carolina truck limit case, in which the state was upheld in its right to limit the size and weight of trucks on its highways, is reviewed herein. The case is an important one, because several other states have similar truck weight limit statutes which are under legal fire by the truckers. The I. C. C. has taken the truckers' part in this controversy, and if their faces are not red now they ought to be. The issue does not, however, appear to be permanently settled, because Congress has not yet attempted to legislate uniformity into truck

weight limits. Whether it has power to do so remains to be seen. If it does have the power and should attempt to exercise it, the least that can be hoped is that it will seek some real engineering data on the effect of heavy trucks on road costs—and not accept the hand-me-down formula urged by the Bureau of Public Roads and the State Highway Officials' Association. •

**TRUSTEES:** President Denney of the Erie has been named a trustee of the property in bankruptcy, as has President G. W. Webster of the Soo Line. "Outside" trustees for both properties have also been named—John A. Hadden for the Erie and Joseph Chapman for the Soo. All must be confirmed by the I. C. C. Some opposition has developed to Mr. Chapman, Minnesota Congressman Teigan asking the I. C. C. to inquire carefully into his qualifications—he apparently not liking Mr. Chapman very much. •

**P.R.R. ELECTRIFICATION:** The Pennsylvania's largest project, now nearing completion, for the electrification of its main passenger and freight routes from Harrisburg eastward to Paoli and Morrisville and southward to Perryville, and from Monmouth Junction to South Amboy, is described in an illustrated article herein. Upon completion of the work, the Pennsy will have 2677 miles of electrified track—or 41 per cent of the U. S. total. •

**TOLL ROADS:** Could enough security values be "wrung out" of the railroads to offset the prospective competition from the latest political "white rabbit," the 8-billion-dollar toll road scheme? An editorial herein asks this question in pointing out the inconsistency of the federal government's trying to "save" the railroads by legislation, while at the same time it is hatching a plan such as this one to take more traffic away from them. •

**SALVATION BY AMPUTATION:** Is the railroad problem one of an industry which, in large part, is obsolete—and which can be restored to health only by large-scale amputation of facilities and security values? The leading editorial herein suggests that a lot of powerful people appear to view the current situation of the railroads in exactly that light. The editorial contends, however, that *railroad difficulties arise more from the failure of American industry to increase its production as it formerly did than they do from diversion of traffic to rival agencies of transport.* The failure of production and traffic to expand is analyzed, and an important cause for the failure is found in too rapid wage advances, which have far overreached labor's increase in efficiency. •

**INVENTORIES UP:** On November 30 the Class I roads, excluding terminal lines, had \$383 million dollars of supplies on hand, an increase of 30 per cent over the preceding year. The inventory reduction during the month of November was 715 thousand dollars.

**"FAIR RETURN" REVIVAL:** Ralph Budd, addressing the Chicago Chamber of Commerce last week (and reported herein), called attention to the "emasculations" of the Transportation Act of 1920 and asked for a return to some of its basic principles, among them the "fair return" yardstick for rate-making, the re-establishment of a Labor Board, and large-scale consolidations. He drew particular attention to the inequity of present mileage rates of pay in train and engine service—and foresaw railroads ordering 2,000 locomotives and 100,000 cars a year for a good many years, if their credit were restored. •

**SHIPPIERS VS. TRAIN LIMIT:** Representatives of shipping interests appeared this week before the House Commission on Interstate Commerce to voice their objections to the 70-car train-limit bill. W. H. Day for the Boston Chamber of Commerce expressed the fear that the bill would affect unfavorably the railroads' ability to provide cheap and efficient service, confirming the testimony of Vice-President Brown of the Reading that the measure would impede the carriers in providing good service to shippers. •

**COAL PRICE VICTORY:** The court of appeals in Washington has granted the railroads' petition for a stay of the Coal Commission's order fixing minimum prices for locomotive fuel. The carriers contended that these prices were fixed without giving them an opportunity to be heard. •

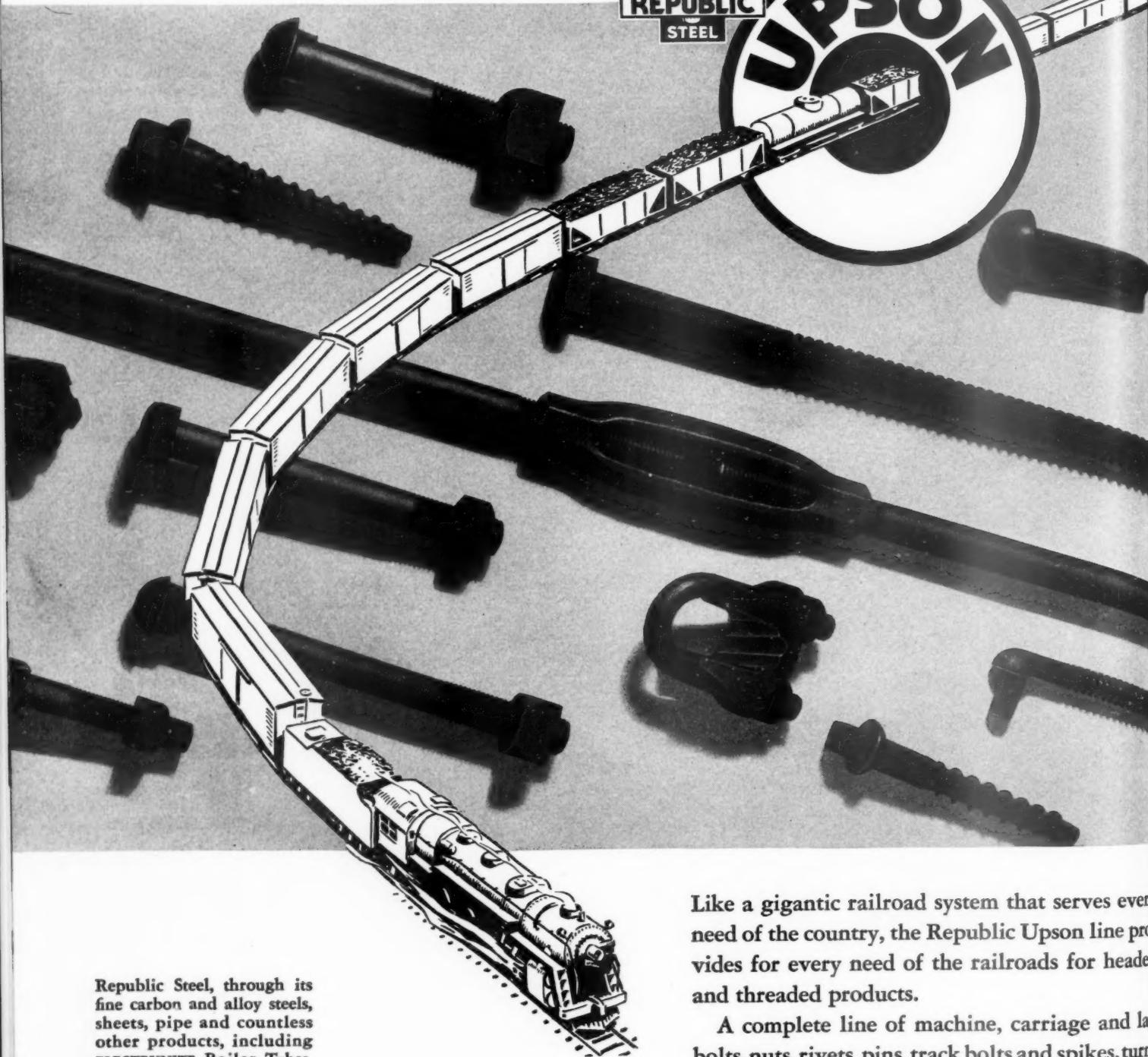
**WABASH PLAN:** Receivers of the Wabash on Tuesday filed a reorganization plan in the federal court at St. Louis which would reduce fixed charges from 7.3 millions to a little less than 3 millions. Present stockholders would be assessed under the plan, common holders not paying the assessment receiving one-ninth share of new common (no par value) for each share now held. •

**EQUIPMENT:** The federal court at Chicago has authorized the Milwaukee to proceed with its plans to acquire 4 high-speed steam locomotives, 55 passenger cars and 464 flat cars. The New Haven has ordered 50 new coaches and 10 Diesel-electric switchers and will rebuild 100 of its own coaches and 50 coaches formerly used on the defunct New York, Westchester & Boston. The Burlington has ordered 100 ballast cars and the Interborough Rapid Transit is in the market for 50 passenger cars. •

**CO-ORDINATOR REVIVAL?** Rumor in Washington this week had it that the President's Conference on transportation was hatching a scheme for setting up a permanent "transportation board," to be given much the same powers for enforcing economies as those enjoyed by the federal co-ordinator of transportation. Chairman Splawn of the I. C. C., however, who heads the transportation conference, denied that he had given out any information to this effect.

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# The Week at a Glance

**CARLOADINGS:** In the week of February 12 freight car loadings totaled 543 thousand, down 21 per cent from last year.

**112 MILES OF C. T. C.:** Centralized traffic control on an entire 112-mile subdivision of the Burlington into Denver, 105 miles of it being controlled from one machine at Brush, Colo. This largest installation of unified control is described in detail in an illustrated article herein—the installation involving, besides its magnitude, a number of modern refinements which make it unusual. The article analyzes in detail also the saving in time to trains which the new system has brought about.

**NEWARK BRIDGE:** A modern lift-span bridge installation to accommodate what is probably the nation's greatest concentration of passenger traffic over a river which also handles frequent barge movements is described in an illustrated article herein. The bridges (of the Pennsylvania at Newark, N. J.) are two lift-span structures with three lift spans, and they carry six tracks.

**KATY'S CARS:** Three new dining cars, one lounge car and 25 chair cars—all with Cor-Ten steel and other innovations in their construction—have gone to work on the Missouri-Kansas-Texas and are described in detail, with pictures in an article herein. Expert interior decorators have designed the furnishings and shatter-proof glass is used on inside windows.

**CINTI. MDSE.:** Present-day operations of the Motor Terminals Company (a pioneer rail-highway co-ordination project) in handling inter-railroad l.c.l. in Cincinnati are described in an article in the Motor Transport Section herein. This method has been successfully employed at this point since 1919.

**BETTER LABOR RELATIONS:** Chairman Beyer of the National Mediation Board made a plea last Friday in an address before the New York Railroad Club, for a greater degree of co-operation between the labor organizations and railway managements in advancing mutual interests. He expressed the belief that organized employees would be willing to extend such co-operation because they appreciate their status as "a preferred class of industrial workers."

**LABOR DISCORD:** In the leading editorial herein the opinion is expressed that, while most employees would be glad to promote the favorable relationship between themselves and management urged by Chairman Beyer, such conditions are not likely to develop under the Railway Labor Act as it now stands. A near "racket" has developed in the bringing of "back pay" cases before the National Adjustment Board—highly technical cases which are turned over to referees who have appeared in some instances to know little

about railroad operation and to be very, very generous indeed with other peoples' money. How can you promote harmony and co-operation on the railroads, the editorial asks, when men at the bottom of the seniority roster have to be fired in order to pay, on mere technicalities, enormous awards of "back pay" to men who are safe in their jobs?

**LAW FOSTERS DISPUTES:** It is axiomatic that a legal set-up which frequently gives somebody a windfall fosters litigation rather than reduces it. On this basis, the present referee method of the National Adjustment Board undoubtedly invites claims which would never be filed if the claimants knew they were going to be judged by men who knew railroading as thoroughly as they themselves. The present set-up fosters discord, instead of promoting harmony.

**LABOR LAW A FLOP:** There is a great deal of well-meaning but ignorant talk going around about the success of the labor relations machinery on the railroads. Success is inferred because the public sees no fighting. But the absence of conflict doesn't necessarily mean that justice is being done. Look at Germany or Italy. Or, nearer home, look at the thousands of railroad employees who have lost their jobs entirely in order that those remaining might have the highest wages in history. Or look at the prostrate situation of the people who supplied the capital to make railroad jobs possible in the first place; and whose further investments are needed to make railroad jobs for the future.

**FUEL EFFICIENCY UP:** Fuel efficiency (pounds of coal for 1000 gross ton-miles) in 1937 reach a new record—117 lb., a reduction of 2 lb., or 1.7 per cent, under 1936. The A. A. R. ascribes the improvement (28 per cent since 1921) largely to "improvements in the construction of locomotives."

**MUSTN'T HELP PATRONS:** Senator Wheeler (whose boiling point sometimes is rather low) waxed warm last week upon the disclosure of evidence that P. R. R. subsidiaries had guaranteed loans of some perishable shippers, thus permitting them to continue in business and to continue providing traffic for the railroad.

**PLOTTING AND PLANNING:** The Washington planners, inside the Administration and outside, are busy planning ways and means to "save" the railroads. The "one big railroad" idea is advanced in one quarter. In another a "transport board" is proposed, to have about the same powers as the federal co-ordinator. Elsewhere, a new three-judge court is urged to speed reorganizations. So far as reports go, however, no official has got so radical as to propose that causes of railway difficulties, rather than symptoms, be dealt with.

**RED CAPS EMPLOYEES:** Two I. C. C. examiners have recommended that the Commission find that "Red Caps"—including those who receive no compensation from the railroads—are nevertheless "employees" and come under the Railway Labor Act.

**BUSES OVER BAY BRIDGE:** Train connection motor coaches now transport Santa Fe passengers to San Francisco from San Pablo avenue station in Oakland to the company's new bus terminal in the heart of San Francisco, the buses being routed over the new Bay Bridge. An illustrated article herein describes the operation.

**TRAIN LIMIT DELAY:** Chairman Lea of the House Interstate Commerce Committee last week ended for the time being the hearings on the 70-car train limit bill which the train service unions are urging on Congress. The hearings will not be resumed until some time after March 1, when the A. A. R. is expected to introduce further testimony in opposition to the measure.

**FAN TRIPS:** The Pennsylvania has announced a number of Sunday excursions to its shops for the benefit of railroad fans in Mid-Western cities. On March 6 an excursion for fans will be operated out of New York over the Lehigh Valley with Hazleton, Pa., and Ashmore as its objective.

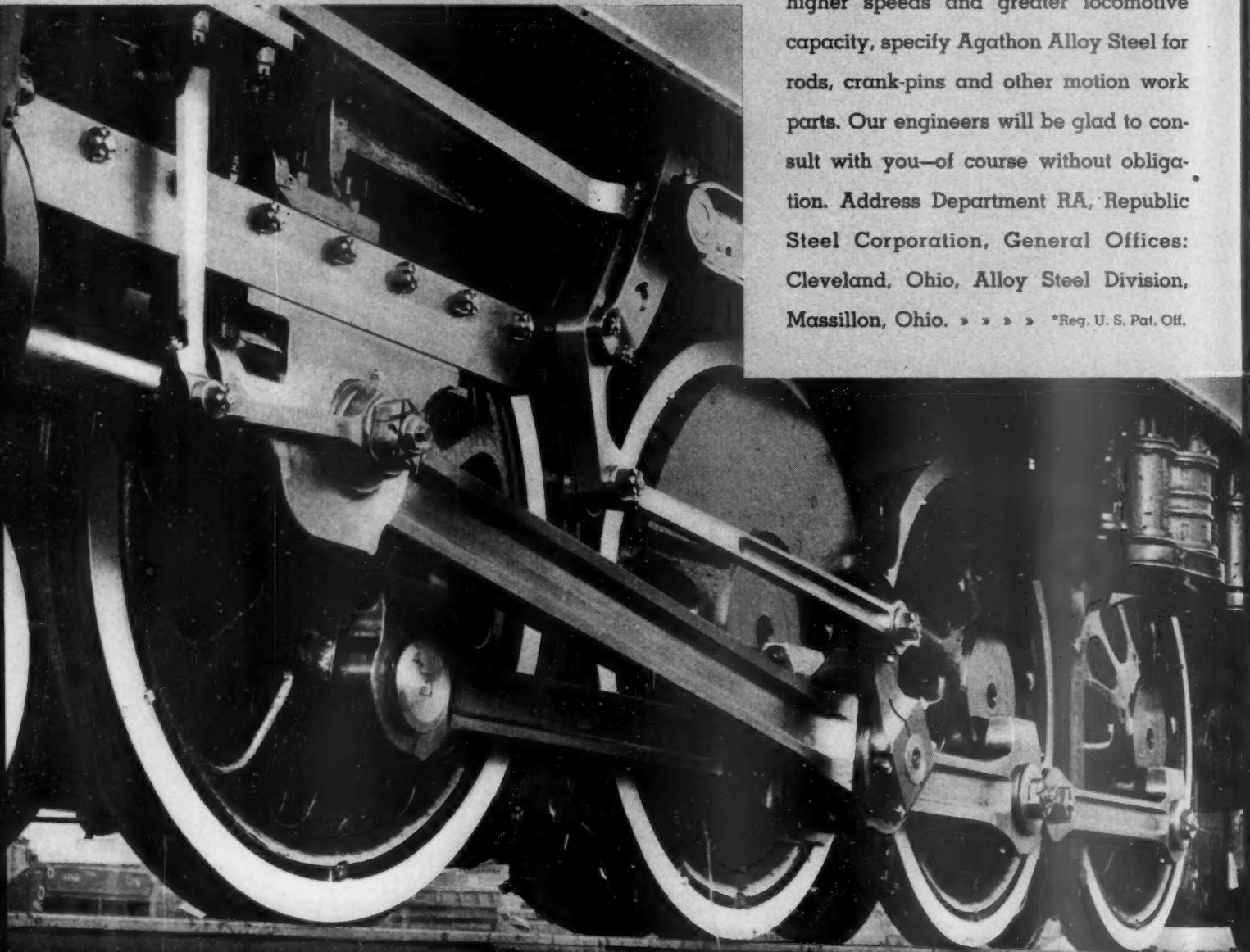
**UNIONIZED MEDICINE:** The St. Louis Medical Society and the St. Louis Dental Society have taken a lesson from the railway unions and are attempting to use the law to give them economic advantages. Specifically, they are trying to institute *quo warranto* proceedings to forbid a charter to the Mo. P. Hospital Association, so that railroad employees will be forced to patronize individual physicians and dentists.

**A FREE RAILROAD:** The Gulf, Mobile & Northern, in answer to complaints regarding its local passenger service into New Orleans, has offered its patrons free use of its facilities on which they may operate their own trains—if the railroad may thereby be relieved of the expense of providing the service.

**SEC. 4 HEARINGS:** The Senate Interstate Commerce Committee was supposed to have begun hearings on the Pettengill bill on Wednesday this week, but Senator Wheeler postponed the opening until Thursday.

**READING "CRUSADER":** The Reading and Jersey Central's streamlined train between New York and Philadelphia has been named the "Crusader," as a result of a contest among its patrons—the lucky passenger who suggested the name receiving an award of \$250. Lily Pons, operatic star, christened the train on Wednesday at Reading Terminal, Philadelphia.

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# The Week at a Glance

**CARLOADINGS:** In the February 19 week freight carloadings eased off to 536 thousand, being a reduction of almost 25 per cent under the comparable week of 1937.

**HOOD PUTS THE FINGER:** J. J. Hood of the Short Line Association this week gave the President's conferees on the railroad situation a hint of the real nature of the problem they have to deal with when he asked them a few brain teasers such as: How can federal and local authorities be prevented from extending to railway rivals, subsidies which are not in the public interest? How can the authorities be prevented from requiring railway expenditures for political rather than economic objectives?

**MIRACULOUS POLITICS:** High railway operating costs and high taxes are largely the work of politics. Traffic diversion to rival agencies of transportation is largely attributable to political favoritism of these agencies. Regulation set up by political authority has prevented railway rates from rising to meet rises in the prices of other goods and services. The country's volume of production and traffic has been reduced by restrictive political policies. Thus the present plight of the railroads can be laid at the door of politics, and nowhere else. The leading editorial herein proceeds from these observations to the contention that another dose of political coercion (probably to make it easier to wipe out railway investors) is no remedy for conditions ascribable only to politics. You can't cure a man who is dying of poisoning by doubling the dose of the poison.

**LACHER A. R. E. A. SEC.:** W. S. Lacher, engineering editor on the staff of *Railway Age* for the past 23 years, has been chosen the new secretary of the American Railway Engineering Association. He has been succeeded as engineering editor by N. D. Howard, heretofore Eastern engineering editor, and M. H. Dick succeeds Mr. Howard.

**TRAIN LIMIT HEARINGS:** The House Committee on Interstate Commerce on March 1 reopened hearings on the train limit bill after a week's recess. Dr. Parmelee for the railroads told the committee that the measure would cost the carriers more than \$100,000,000 in operating expenses and would necessitate  $\frac{1}{2}$  billion in capital expenditures—all of which would have to be contributed by railway patrons or by railway employees out of their pay, since the railroads have already "scraped the bottom of the barrel" and have no resources out of which to meet these additional costs.

**SILLCOX' ANALYSIS:** The train-limit bill would increase accident hazards on the railroads, rather than diminish them. This is the finding of the able engineer and transportation analyst, L. K. Sillcox, from

an exhaustive study of 1936 accidents, reported herein. Only 12 railway employees were killed in that year by "shock" accidents, whereas 138 employees lost their lives by accidents of a kind which tend to increase when additional trains are run. Thus, through limiting the length of trains, the organized employees are attempting (at least "for the record") to reduce a cause of accidents which is relatively unimportant, at the price of increasing those accidents which produce the greatest number of employee fatalities.

**N. R. O. I. CATAPULTS:** Net railway operating income in January was less than 7 million dollars—a return on the property investment of less than  $\frac{1}{2}$  of one per cent per annum. The decline from January, 1937, was 82 per cent, while gross revenues were off only 15.8 per cent. The Western railroads in January did not earn enough to pay operating expenses and taxes.

**TRUCKERS PLAN RATE HIKE:** The American Trucking Associations are making plans for issuing new tariffs to cover rate increases which they expect to ask the I. C. C. to authorize as soon as that body makes known its decision with respect to the railways' petition for permission to increase freight rates.

**I. C. MOVES DIRECTORS:** Following a suggestion made recently by W. A. Harriman that railroad headquarters should be among the people they serve, rather than in New York, the Illinois Central is transferring the seat of its directorate from New York to Chicago. In announcing the change, the company explains that it has been handicapped in its desire to add prominent men local to its territory to its board because of the inconvenience to them of attending meetings in New York. With the change, it proposes to increase its directorate from 12 to 15, all the new members to come from areas which are reached by the company's lines.

**CONVINCES MINTON:** At the hearings on the Pettengill bill before the Senate Interstate Commerce Committee this week, J. G. Kerr of the Southern Freight Association, exhibited a tariff into which 160 pages had been inserted to comply with conditions stipulated by the I. C. C. in a Sec. 4 order—an exhibit which Senator Minton confessed "almost sold" him on the virtue of the bill. An I. C. C. stand-in at the hearing contended that the commission had granted 85 per cent of the 17,000 Sec. 4 applications made to it, to which Judge Fletcher retorted that the 15 per cent the Commission turned down were the only ones which involved any real money. The unconscionable volume and complexity introduced into rate regulation by the long-and-short-haul clause was the target of President Hood of the Short Line Association, who contended that the short lines lacked the staffs to prepare the "highly technical applications" required by this section.

**CAR WELDING:** Increasing the pay load of freight cars in relation to tare is emphasized as one of the advantages of welded construction in a summary herein of this modern process in car building, by V. R. Willoughby, A. C. F.'s engineering vice-president. The use of this method in the fabrication of covered hopper cars for dry lading, and other classes of freight equipment are also set forth—and the application of this process to virtually all passenger car construction is related, with the results which have been achieved thereby.

**MORE ELECTRICS:** The Pennsylvania has this week received from its Altoona Works and placed in operation 11 additional streamlined electric passenger locomotives (type GG-1), bringing its fleet of this design up to 69. The road now has more than 200 electric locomotives in operation in passenger, freight and switching service.

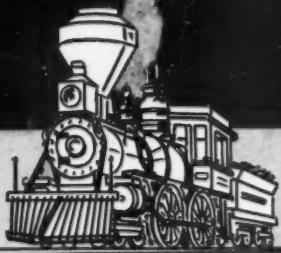
**YOUR STATE AND R. R.'S:** Elsewhere herein will be found a map of the United States with a dot upon it representing every community in which railroads made purchases in 1937. President Pelley of the A. A. R. recently presented testimony on the location of railway purchases before a Congressional Committee investigating unemployment, and the A. A. R. had maps made for each state in the union showing this information. If there is a more graphic or powerful argument possible to the public in behalf of decent earnings and spending power for the railways than this exhibit, we should like to see it.

**POOLING UPHELD:** The Supreme Court on Monday this week upheld an I. C. C. order authorizing the Milwaukee and the Northwestern to pool their ore traffic between the Menominee range and the ore docks at Escanaba. The Escanaba & Lake Superior attacked the pool in the courts, contending that it should have been included in the negotiations because the Milwaukee has trackage rights over its lines.

**R. I. ENGINE TERMINALS:** The Rock Island has saved considerable expense by using electric power in its engine terminals to operate equipment formerly steam-driven. At Fairbury, Nebr., for instance, the electric facilities installed are earning, by their comparative economy, a return of more than 50 per cent on the investment. An article herein describes these installations, and enumerates how they are saving money.

**SLOW PENSIONS:** Murray Latimer, chairman of the Retirement Board, has explained in a recent letter to Representative Cochran why the board is behind in its work—namely that it got its peak load of work right at the outset. In its first year the board received 10 times as many applications as it will have to handle in any future year.

# GRANDFATHER COULDN'T DO IT



Grandfather took staybolt renewals as an expensive

necessity—he had to! » » » But with the materials he had, today's locomotives just couldn't be operated. » » » Modern locomotive service, with high boiler pressures, large fireboxes and long, continuous service, must have staybolt material of high tensile strength, high corrosion resistance, high resistance to vibration and fatigue. » » » Agathon® Alloy Staybolt Steel is such material. It withstands

the complex stresses that only a firebox can impose. It increases mileage per staybolt and reduces costs. It increases dependability and safety of performance. » » » Agathon Alloy Staybolt Steel, like all Republic locomotive materials, assures longer service life and economy of locomotive maintenance. » » » Our metallurgists will be glad to consult with you. Address Department RG, Republic Steel Corporation, General Offices: Cleveland, Ohio, Alloy Steel Division, Massillon, Ohio. » » » \*Reg. U. S. Pat. Off.

# REPUBLIC STEEL

BERGER MANUFACTURING DIVISION • STEEL AND TUBES, INC. • UNION DRAWN STEEL DIVISION  
NILES STEEL PRODUCTS DIVISION • TRUSCON STEEL COMPANY



# The Week at a Glance

**CARLOADINGS:** Freight cars loaded in the February 26 week totaled 512 thousand, down 26 per cent from last year.

**RATE DECISION:** The Commission has, by its decision, in Ex Parte 123, clearly said to Congress and the Administration: "The problem of railroad solvency is yours. It is much too big a job for the likes of us." An editorial herein makes a preliminary appraisal of the decision (we'll have more to say once we finish reading it). All it looks like to us now is 175 million dollars which the railroads will have available that they otherwise wouldn't have had. But it isn't nearly enough, and, unless traffic takes a sudden jump, some heroic efforts have got to be made to reduce operating expenses.

**S. F. STEAM STREAMLINER:** Six handsome high-speed passenger 4-6-4's have recently been delivered by Baldwin to the Santa Fe and are described and pictured herein. Oil burners, these jobs will work between Chicago and La Junta. One is streamlined, the other five having conventional livery. The engines have 7-ft. drivers, carry 300 lb. of steam and develop 49,300 lb. tractive effort.

**MT. STATES GYPED:** E. G. Plowman for the Colorado Fuel & Iron Corp., told the Senate Committee at the Pettingill Bill hearings last week that Panama Canal competition had put the kibosh on the competitive position of Rocky Mountain producers—but that it was the unflexible Section 4 that made this competition so deadly. Population is fleeing the interior and concentrating on the coasts as a result of this handicap, he said. Organized railway labor also supported the bill. In an aside, John Corbett of the B. of L. E. threw out a strong hint—practically a threat—that the unions may support socialized railways if union "gimme's" aren't satisfied.

**70-CAR RECESS:** The House Committee hearing the arguments on the transportation unions' scheme for completing the ruin of the industry which employs them, has recessed until March 13 to give the labor "boys" a chance to think up answers to the testimony the railroads have presented knocking the props out from under this hypocritical "safety" measure. The carriers' closing testimony is summarized elsewhere herein.

**HAPPY HOOVER DAYS:** The railroads in January, 1938, earned 40 per cent less net railway operating income than they did in July, 1932, the lowest month in the regime of President Hoover. This in spite of the fact that gross revenues were 17 per cent higher. The leading editorial in this issue compares the present New Deal "recession" with the G. O. P. "depression," showing that the recession is the worse of the two—for employees of junior seniority, for railway security owners and for the railways' pur-

chasing power. By contrast, employees with sufficient whiskers to hold on to jobs are living on the fat of the land, comparatively speaking, some of them drawing hourly pay as high as 30 per cent above 1932. It isn't very hard to discover why 46,000 employees have been laid off and security owners furloughed without pay—all the available cash is being absorbed by those still on the job.

**ROGERS SEES A GHOST:** Reversing a ruling of Division 5 handed down last summer, the I. C. C. has held that trucks performing collection and delivery for railroads come under Part I of the Interstate Commerce Act, and hence are not to be regulated as motor carriers. Commissioner Rogers is pretty badly burned up about it all, predicting an assortment of dire results—of which chaos and destruction are the least disturbing. Commissioners Lee and Caskie testify as eye-witnesses to the same fearsome apparition, and Commissioner Eastman (who doesn't believe in spooks) chides his three colleagues gently for their premature jitters.

**TRUCK TRAFFIC DOWN:** In January truck loadings were down over 20 per cent under last year, according to the index, compiled by the American Trucking Associations.

**A LADY LEADS THEM:** The Railway Magazine Editors Association has chosen Miss Martha Moore of the Frisco as its president—the first time, it is believed, that a woman has ever headed a railroad association.

**TWILIGHT SLEEP:** What is wanted for the railroads is a plan which will make them financially healthy again, while at the same time inflicting no economic pain on any of the interests involved who happen to have votes. This is the view of the problem as expressed by Fairman Dick in an address before the Bankers' Association last week. The question, he went on, is one of money—and there can't be more money in railroad treasures unless more money is taken in or expenses are reduced, or both, and neither of these alternatives is possible without poking someone rather rudely in the pocketbook nerve. And the pokee resents that and so does his Congressman.

**"AGREED" CHARGES AGAIN:** S. W. Fairweather, economist for the C. N. R., defended the principle of "agreed" charges as the answer to motor carrier competition on Monday of this week before the Rotary Club at Peterboro, Ont. (reported in the news pages herein). Mr. Fairweather contends that railroads cannot lower rates on short-haul, high-value shipments without corresponding increases on long-haul, low-value goods, thus destroying the nation-building economy of railway service. The "agreed" charge, he contends, is the true answer to this dilemma, both from the standpoint of the railways and from that of the public interest.

**R. I. UNDERPASS:** A grade crossing elimination job which involved some unusual and perplexing problems is described in an illustrated article herein. The structure is on the Rock Island-New York Central 4-track joint line into La Salle Street station, Chicago, and the work was necessitated by the city fathers' decision to widen Cermak road from 66 ft. to 120 ft. They couldn't raise the tracks much and they couldn't depress the street level at all. The answer was found in a two-span, rigid-frame design.

**FLOODS IN CAL.**: A short article in this issue summarizes the railroad delays and damage which resulted from the floods in the vicinity of Los Angeles last week. A rainfall of almost 11 inches gave a lot of arroyos more than they could handle, there were some bridge failures and washouts and a lot of detouring.

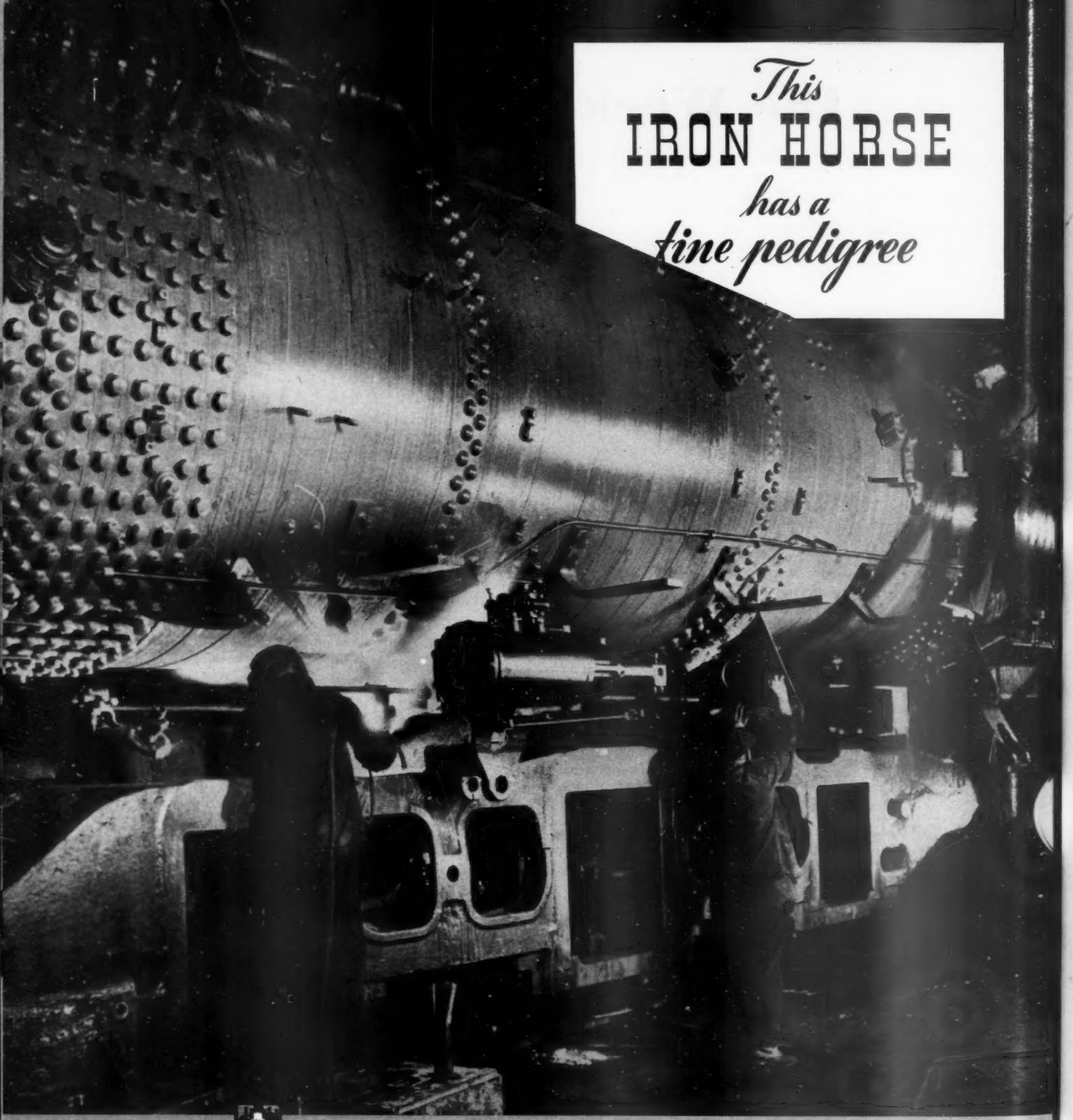
**INVENTORIES UP 20%:** An article elsewhere in this issue gives details of railway inventories of materials and supplies at the end of 1937 as compared with the two preceding years. The 1937 total (including short lines and terminal roads as well as Class I carriers) was 390 millions—up 20 per cent over the previous year.

**EX PARTE 123:** The salient details of this decision are set forth in an article elsewhere in this issue. Noteworthy, beside the virile views of Messrs. McManamy and Mahaffie, is Mr. Eastman's observation on other existing opportunities for greater revenues.

**EQUIPMENT:** The Bangor & Aroostook has ordered 665 freight cars of various types and the C. & N. W. is inquiring for some 15,000-gal locomotive tenders. The federal court has authorized a budget of \$6,000,000 for the Milwaukee.

**POWER REVERSE ORDER:** The Interstate Commerce Commission has modified its power reverse gear order which required the installation of these devices when Class 3 repairs, or better, are made. Now the gears have to be installed only when Class 1 and 2 repairs are involved.

**MAHAFFIE & McMANAMY:** The two commissioners—all honor to them—who were outspokenly dissatisfied with the niggardly rate action of their colleagues were Messrs. McManamy and Mahaffie. The former called attention to the fact that "the railroads cannot operate on advice or admonitions" (which must have been startling news to most of his confreres) and the latter cut through the illogical verbiage of the report with the bell-clear observation that "the increases will not permit the adequate transportation system contemplated by the law." The corollary inevitably follows, if I. C. C. regulation is such as not to permit the continuance of the function which it regulates, as Mr. Mahaffie contends, that the Commission is destroying its own *raison d'être*.



*This*  
**IRON HORSE**  
*has a  
fine pedigree*

**REPUBLIC**  
STEEL  
REG. U. S. PAT. OFF.

# REPUBLIC STEEL

STEEL AND TUBES, INC.  
TRUSCON STEEL COMPANY  
UNION DRAWN STEEL DIVISION  
NILES STEEL PRODUCTS DIVISION  
BERGER MANUFACTURING DIVISION

Soon to take its place in a stable of streamlined thoroughbreds, this modern "iron horse" is made possible by alloy steels. » » » Hundred-mile-an-hour speeds calls for alloy materials. Republic Alloy staybolts for the higher boiler pressures; Republic Alloy rods and pins to take the greater piston thrusts; Toncan\* Iron firebox sheets and Electrunite\* boiler tubes for dependability in service. » » » Republic has developed these and many other special materials for the locomotive designer and all railroad uses. Address Department RA, Republic Steel Corporation, General Offices: Cleveland, Ohio; Alloy Steel Division: Massillon, O. \*Reg. U. S. Pat. Off.

# The Week at a Glance

**CARLOADINGS:** In the March 12 week freight cars loaded totaled 557 thousand, down 25 per cent from last year, but up a little less than 1 per cent from the preceding week.

**FEBRUARY GROSS:** Preliminary reports from about 83 per cent of the roads indicate that February gross revenues were down 23 per cent under last year. Freight revenues were off 26½ per cent and passenger business about 5 per cent.

**PUBLICANS TRIUMPH:** The tax-gatherers swooped down on the railroads in January and took more than \$4 for every \$1 available for railway owners and creditors. After operating expenses were paid, the taxing authorities took 81 per cent of all the money left. Payroll taxes alone in January were 8½ millions, or 20 per cent more than the owners and creditors got as their pitiful share of January earnings. Other facts of the industry which exists for the benefit of the tax collectors rather than the owners are given in an editorial herein.

**EXPRESS C. & D.:** The Canadian Pacific has turned over its collection and delivery operations at Toronto and several other Ontario cities to its express subsidiary—and its reasons for thus replacing local contractors are given in an article in the Motor Transport Section herein. Vehicle drivers are being trained as traffic solicitors and full advantage is being taken of the advertising value to the railway of operating its own vehicles in city streets.

**BIG ENGINES BLAMED:** Hearings on the train limit bill were concluded last week by the House Committee on Interstate Commerce. W. D. Johnson of the O. R. C., one of the supporting witnesses, declared that the greatest mistake the railroads ever made was to discard little engines for big ones. He wound up with the well-known Socialist catch phrase: "Human rights should be placed ahead of property rights."

**FORWARDERS FAVORED:** All-commodity rates from Chicago and St. Louis to Birmingham have received the I. C. C.'s benediction, despite a proposed report by an examiner disapproving the rates, contending that forwarders would be the principal beneficiaries. The I. C. C. held that the rates would help the railroads meet modern competitive conditions—and would simply give Birmingham rates which many other communities already enjoy.

**LET'S AGREE A LITTLE:** It is pretty short-sighted to advocate results, while at the same time disregarding the only means by which desired results can be obtained. The leading editorial herein calls attention to this fact, raising the question how labor can expect to get high wages and shippers low rates when neither of them seems to care whether needed new capital is attracted into railroad investment

or not. Are there not a few fundamental principles of railroad policy upon which all contending parties—shippers, labor, government, managements—might agree, and thus rescue the industry from the squabbling which is getting no advantage of any reliable permanence for anybody? The editorial tentatively suggests a few principles upon which at least some of the conflicting parties might agree, and the adoption of any of which would undeniably increase the prosperity of every interest connected with railroading.

**BOSTON TRAIN CUT:** The New Haven has presented its case to the Massachusetts Utility Commission for the abandonment of 88 suburban stations in the Boston area and pulling off 500,000 train-miles of passenger service. The stations the road wants to close and the trains it wants to retire are all parasites, costing more to operate than they take in, and eliminating them would save the road \$1,000,000 a year—a piece of change it badly needs. The road pointed out that a steam railroad is handicapped from the start in trying to provide rapid transit transportation because of union rules which require payment to employees for more mileage than can be secured from them. If the Boston area trains were left out of count, the New Haven would earn \$3.20 per passenger train-mile, as contrasted with its present average of \$2.80.

**PARLEY WITH UNIONS:** Member roads of the A. A. R., meeting in Chicago last Friday, authorized territorial committees of executives to meet with the labor executives in the endeavor to secure their co-operation in facing the economic situation with which the railroads are confronted. Names of the negotiators in behalf of the railroads are given in a short article herein, which reports the deliberations of the Chicago meeting. The directors of the A. A. R. had previously proposed asking the member roads for authority to seek wage reductions, but later submitted their proposal in more general terms.

**UNIONS FAVOR OLD HEADS:** The unions are getting more and more hard-boiled in their treatment of their own members of junior seniority status. The agreement made last summer with the non-operating unions will be recalled, whereby managements are not permitted to reduce expenses by "spread the work" methods, but have to keep men on full time or else fire them, unless the general chairmen agree otherwise. This means that old heads make no sacrifices whatever when business falls off—while the unfortunate younger employees lose their jobs entirely. Evidence of the spread to Canada of the new policy of disregard for younger employees appeared in Parliament this week, when Transport Minister Howe disclosed that C. N. R. shop unions are insisting on expense reductions by layoffs rather than by cutting shop time from 5 to 4 days a week.

**A COUNTY R. R.?** The New York legislature has passed, and the governor is expected to approve, a measure which would authorize the Counties of Westchester and The Bronx to acquire and operate the New York, Westchester & Boston, electric line of which operation was suspended December 31—the road being unable to pay operating expenses and taxes.

**PANS SECURITY GROUP:** Senator Wheeler this week took out after the Security Owners' Association, bringing to light evidence purporting to show that it had been largely financed by contributions from various Van Sweringen companies—and he introduced personal correspondence between President Milton Harrison of the association and President Pelley of the A. A. R. in which the former claimed he had "scotched" Senator Wheeler's keyhole expedition into railway financing. Mr. Harrison said his letter making this contention had been a "mistake."

**MILWAUKEE MERGER:** Consolidation of the Milwaukee and the North Western would save 3½ million dollars—the adviser to the protective committees of these roads' stockholders told the I. C. C. this week. Counsel for these equity owners, therefore, asked the Commission for a year's postponement of the Milwaukee reorganization, pending a further study by R. F. C. experts of these merger possibilities, but the I. C. C. denied the extension. Trustee Scandrett of the Milwaukee estimated that the freight rate increases would give the road 5½ millions additional net income on the basis of 1937 traffic.

**NEW STREAMLINER?** The Santa Fe is considering the establishment of a streamlined passenger train between Kansas City and Oklahoma City.

**JOBS DECLINE:** There were 940 thousand employees in railroad service at the middle of February, off 14½ per cent from last year and 2 per cent since January this year. The maintenance departments took it on the chin as usual—the decline in m. of e. being 21½ per cent from a year ago and in m. of w. 19½ per cent. Train service employment, by contrast, was down less than 14 per cent under last year.

**LARGEST LIGHT FLEET:** The Santa Fe now has 151 lightweight steel passenger cars in service in 13 streamline trains—and an illustrated article herein gives the details of this largest fleet of streamliners to be operated by any railroad.

**SALVATION NEXT WEEK:** The President expected to receive the report of Commissioners Eastman, Splawn and Mahaffie telling him what should be done about the railroad situation at Warm Springs on Friday of this week. Immediately thereafter he plans to seek some further opinions and thereafter take some action—possibly a special message to Congress—by the end of next week.

# WHAT BREAKS STAYBOLTS?

Steam pressure doesn't break staybolts. It's the breathing of the firebox, the bending due to unequal expansion and contraction, the vibration as the engine works—a multiplicity of stresses that the test plant can only approximate. » » » Republic Alloy Staybolt Steel was especially developed to meet the conditions of locomotive firebox service. » » » It possesses high tensile strength, unusual toughness and high resistance to vibration. » » » Republic Alloy Steel is the modern staybolt material for economical and safe service in modern power. It is making records in the firebox. » » » Also helping railroads cut costs are other Republic materials such as Toncan\* Iron pipe and sheets, Agathon\* Alloy steels, Electrunite\* boiler tubes and Upson bolts and nuts. Address Dept. RA, Republic Steel Corporation. General offices: Cleveland, Ohio; Alloy Steel Division: Massillon, Ohio. » » » » » » » » » » » \*Reg. U. S. Pat. Off.

# REPUBLIC STEEL

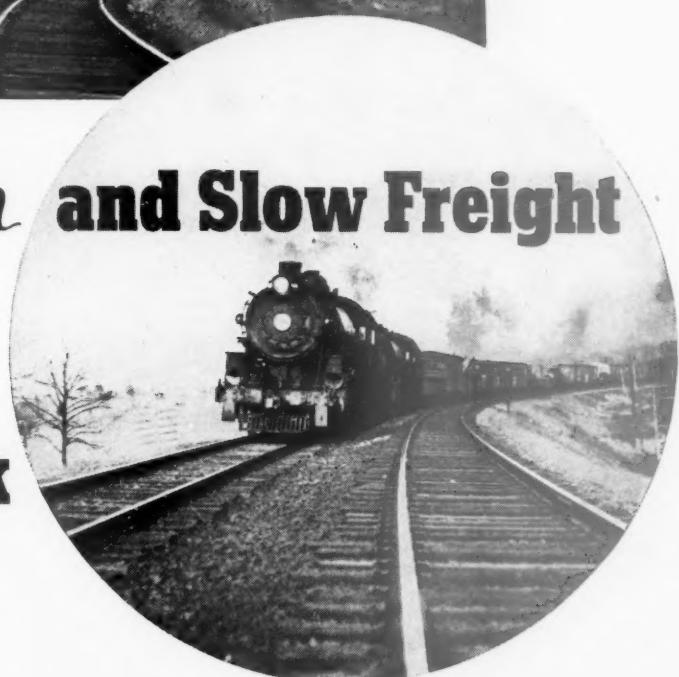
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**When Streamliner and Slow Freight**

**ride the same track**



**Curves need Bethlehem Gage Rods**

**Y**OU can bank a curve scientifically for any given speed—high angle for the swift streamliner, low angle for the lumbering, heavy freight. But you can't bank a curve scientifically for *two* speeds, and when the spread in speeds is great either high rail or low rail must carry many extra tons of side thrust.

These are conditions that call for the use of Bethlehem Gage Rods to hold the track in alignment.

Bethlehem Gage Rods are built for quick installation and rugged service.

A wide hook, forged from the rod itself, clamps firmly over one rail-edge. A single, self-fastening Unit Lock Nut holds the adjustable clip at the other end regardless of vibration or pressure. And the rod is completely insulated from track circuits by an armored fiber tube and washer.

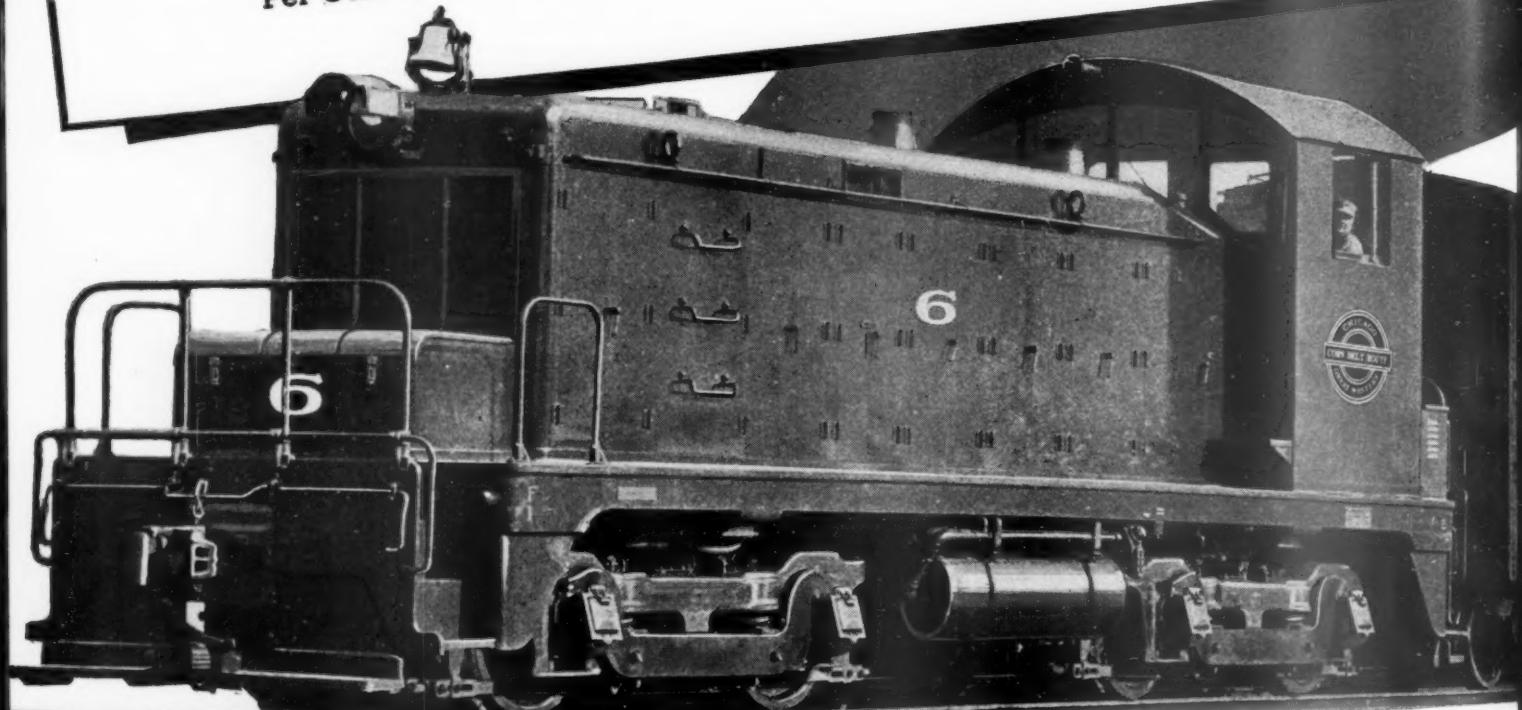
*Let Bethlehem Gage Rods distribute the rail load evenly on your curves. Then watch maintenance costs drop.*

**BETHLEHEM STEEL COMPANY**



# 513 CONSECUTIVE DAYS—24 HOURS PER DAY Actual Service Record, GM 600 Hp. Diesel Switcher on Chicago Great Western

Hours out of Service for Inspection and Repairs	168
Hours Available for Service	12,144
Hours Worked	11,463
Per Cent Utilization	93.1
Per Cent Availability	98.6



**GM**  
DIESEL  
POWER

98.6% AVAILABILITY  
93.1% UTILIZATION

*What Other Type*  
OF MOTIVE POWER  
CAN MATCH THIS  
PERFORMANCE?

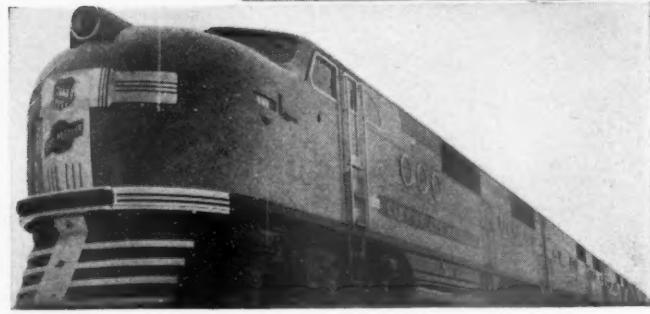
**98.6** PER CENT AVAILABILITY — 93.1 Per Cent Utilization with only 168 hours out of service in 17 months (12,312 hours) for inspection and repairs, is the actual service record of a General Motors 600 Hp. Diesel locomotive on the Chicago Great Western and typical of many other GM Diesels in switching service.

This is tangible evidence of the reliability of General Motors Diesels. It is positive proof of GM's high standards of construction — correct principles of design — the use of the finest materials known to the engineering world — expert workmanship — scientific inspection — rigid supervision . . . resulting in outstanding dependability, superior performance and low operating cost.

Such records of high availability attest to the superiority of GM Diesel power, making it a most profitable motive power investment.

ELECTRO-MOTIVE CORPORATION  
SUBSIDIARY OF GENERAL MOTORS LA GRANGE, ILLINOIS, U. S. A.

# Around the World



**\$2.50 A WHEEL**—A mighty low cost for wheel service on a round-the-world run, yet that's a generous estimate of the price you pay, per wheel, for a 25,000-mile run with your freight cars equipped with U-S-S Wrought Steel Wheels. An example that illustrates how you can curtail running expenses and, at the same time, provide extra assurance against damage to perishable loads and rolling stock. In addition, there is a saving of 1520 pounds per car in unsprung weight—a definite aid in reducing track maintenance.

**WHEELS AND AXLES** on America's most powerful streamliners are U-S-S Wrought Steel. These modern trains, the "City of Los Angeles" and the "City of San Francisco," are now operating on a 39½-hour schedule between Chicago and the Pacific Coast—a long, driving run that calls for the best there is in safe, long-wearing traction equipment.

In freight service, too, U-S-S Wrought Steel Wheels and Axles boost the safety factor and pay dividends in long mileage.

for **\$2 50!** . . . *No other*

*freight car wheel costs so little to run*

• . . *gives you so much Safe Mileage*



WHEN an inferior product costs less, it's not news. Neither is it news when a better product costs more. Rare, indeed, are cases when you can actually get lower cost and higher quality in the same product.

That's why we're proud of the U·S·S Wrought Steel Freight Car Wheel — because it costs you less to use and gives surer safety while you use it—both at the same time.

No one needs to tell railroad men that the wrought steel wheel is the safest wheel that money can buy. Railroad men themselves recognized this fact when, years ago, they adopted this wheel as standard for all high-duty and passenger service.

But cost-per-thousand-miles-of-service is distinctly a different matter. We have long known that the U·S·S Wrought Steel Wheel could promise longer mileage than wheels of other materials. "How much longer mileage?" was a difficult question to answer. Recently our compilation of service data has grown to the point when we can most conservatively state:

*"The U·S·S One Wear Wrought Steel Wheel, under normal freight service, will average at least 150,000 miles of safe service before reaching the condemning limit."*

This means that service costs will run 10 cents or less, on a thousand-mile basis. Wheels of no other material can give you so much mileage, so much safety, at such low costs. For data that apply specifically to your own service conditions, ask one of our Wheel Engineers to call.

## U·S·S WROUGHT STEEL WHEELS

CARNEGIE-ILLINOIS STEEL CORPORATION

Pittsburgh



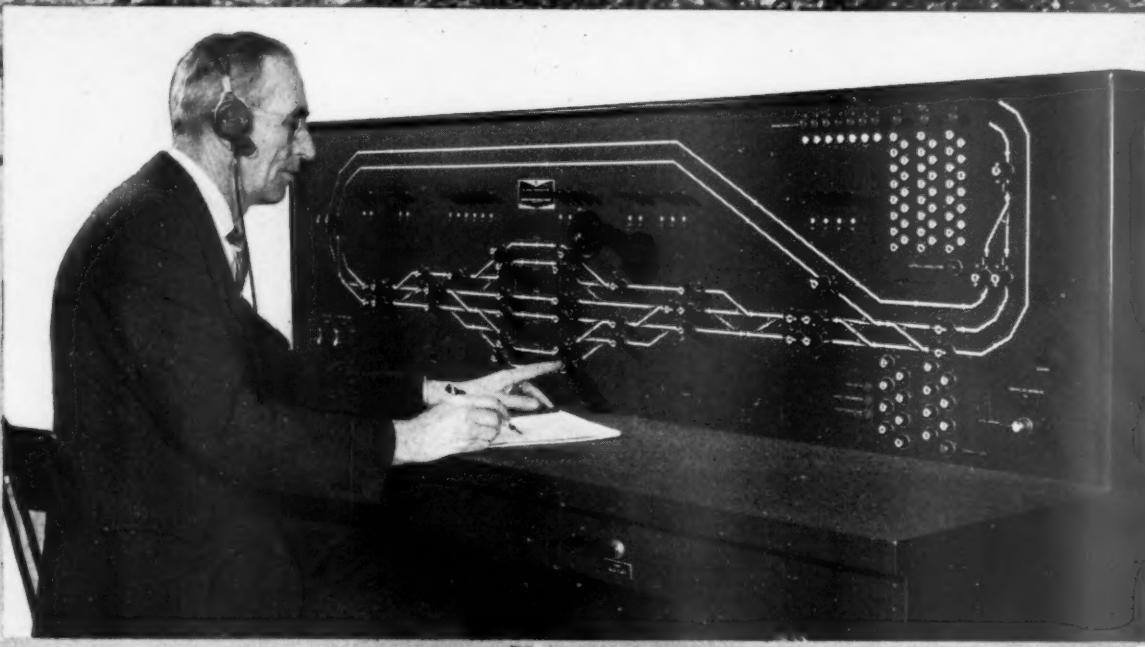
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UNITED STATES STEEL

# LATEST TRAIN DIRECTING SYSTEM NX (eNtrance-eXit) ele



In order to handle an estimated 50,000,000 interurban train passengers annually over the San Francisco-Oakland Bay Bridge, with 17,000 passengers in one direction during a 20-minute peak, ten-car trains on a 65-second headway will be required.

To make possible the rapid changing of routes as trains move in and out of the six terminal platforms at San Francisco, the NX electric interlocking system will be installed. This system simplifies the lining up of routes to the mere pressing of entrance knobs and exit buttons on a control panel.

# SYSTEM FOR SAN FRANCISCO

## electric interlocking



The routes are represented on the control panel with white lines. At the entrance and exit of every possible route are entrance knobs and exit buttons. To line up a route, the operator presses the entrance knob and the exit button desired.

The rest is automatic; the route lines up out on the track, also on the panel, where miniature route indicators, representing switches and crossovers, move to show the route lined up.

After the route is electrically locked and it is safe for the train to proceed, the signal clears. This is represented by a steady white light in the entrance knob.

The successive illumination of lights in the white route lines on the panel informs the operator of the train's movement through the terminal.

**For speed and simplicity in train directing, consider NX for your terminals.**



**GENERAL RAILWAY SIGNAL COMPANY**

New York

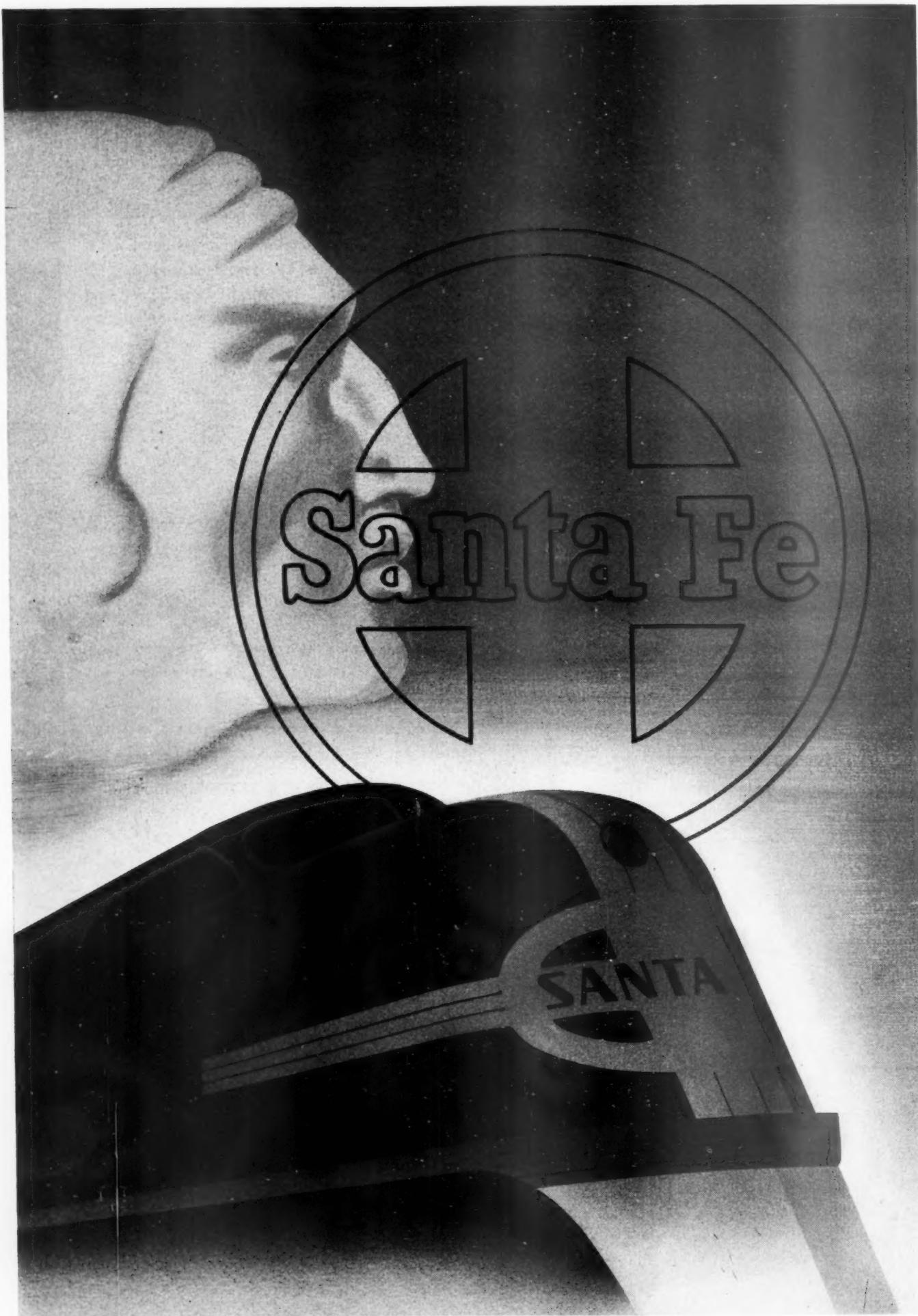
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ROCHESTER, N. Y.

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# Budd

## **SALUTES SANTA FE'S 13 NEW TRAINS**

A splendid new fleet of modern streamliners, flashing today over the rails of the Santa Fe System, writes a brilliant chapter in the history of American railroading.

The Edw. G. Budd Manufacturing Company joins the Nation in congratulating the Santa Fe. And we are proud of sharing in this great achievement.

Two years ago the Santa Fe took delivery of its first Budd-built car. This car weighed only about half as much as conventional equipment, but it was made of stainless steel with four times the elastic strength of ordinary steel . . . and was fabricated by Budd's exclusive SHOTWELD\* process. Its strength was tested in long trains, with heavy equipment. It was tested for riding comfort . . . tested for passenger reaction.

This car passed every test with flying colors. Because it was approved by the

engineers as well as the traveling public, the Santa Fe chose the same construction for its famous *Super Chief*, which went into service in May, 1937. Other orders followed. Now five more exclusively Budd-built trains have been placed in service.

In addition, the Santa Fe is using many individual Budd-built cars in the rest of its new trains. *This is significant.* It is a practical demonstration of the adaptability of Budd cars. They are interchangeable with other equipment. In all, 105 Budd-built cars are now in Santa Fe service. Thus, one car has multiplied a hundred-fold!

Passenger travel has increased on every railroad where Budd trains are in service. For thousands of people . . . having once experienced the unrivaled comfort built into every Budd car . . . are choosing this new kind of ride in preference to any other type of transportation.

\*Reg. U. S. Pat. Off.

**EDW. G. BUDD MANUFACTURING CO.**

**RAILWAY DIVISION - PHILADELPHIA**

**BUDD METHODS SAFELY ELIMINATE DEAD-WEIGHT**



Santa Fe Lightweight Car equipped with Carrier-Safety Steam Ejector Refrigerating Unit

## *Because*

of its dependability, safety and low operating cost, railroads are installing, in ever-increasing numbers, Carrier-Safety Steam-Ejector Air Conditioning Equipment to supply ample cooling, heating, ventilation and dehumidification for passenger cars.

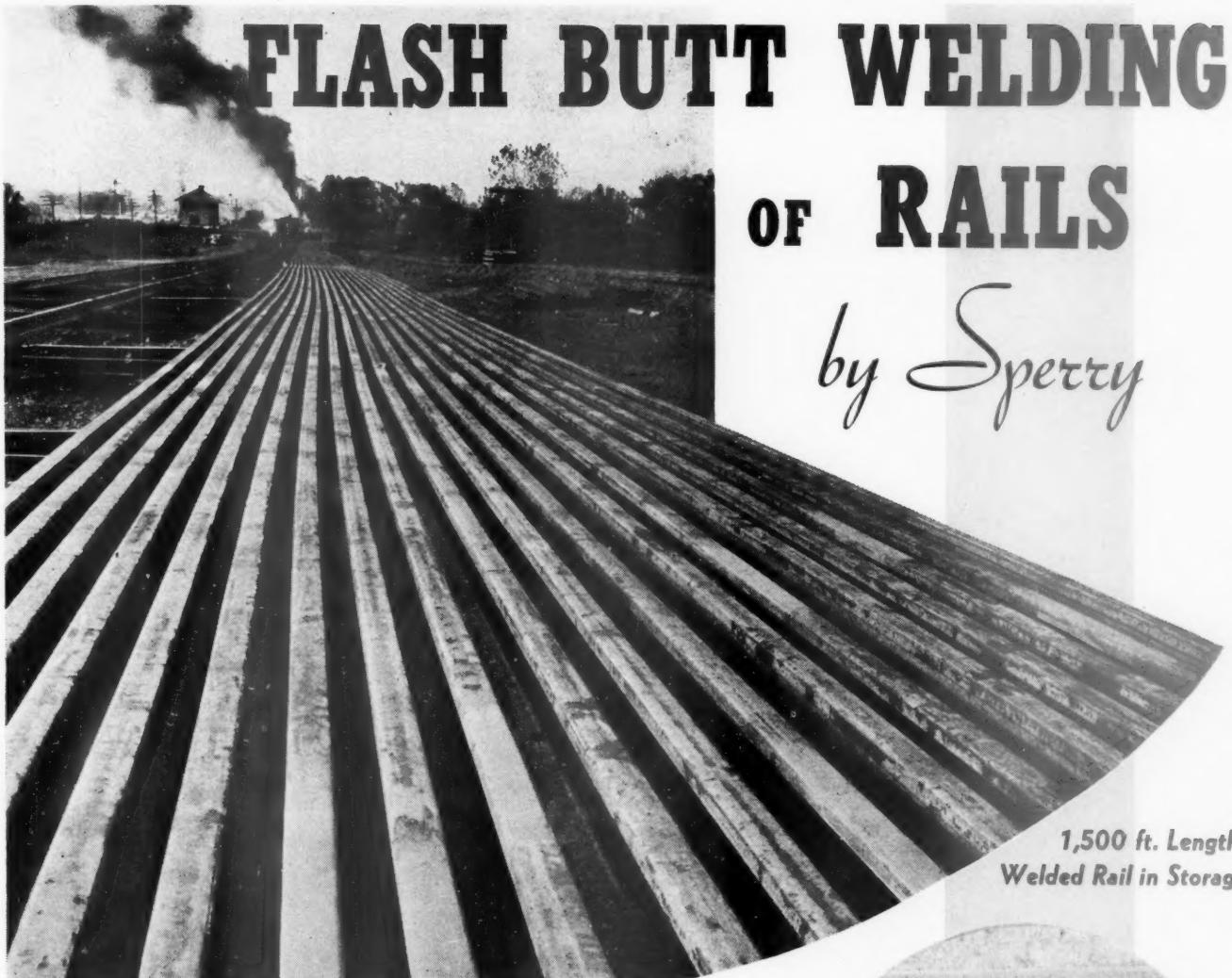


**THE SAFETY CAR HEATING  
AND LIGHTING COMPANY**

NEW YORK  
ST. LOUIS

CHICAGO  
SAN FRANCISCO

PHILADELPHIA  
BOSTON  
MONTREAL



## FLASH BUTT WELDING OF RAILS

*by Sperry*

1,500 ft. Lengths  
Welded Rail in Storage

**Over  
7000 Joints  
Eliminated!**

—by installation of  
**Sperry Flash Welded Rail on the  
Delaware & Hudson Railroad in 1937**

### Welded Rail Means:

1. Elimination of joint maintenance.
2. Longer rail life—no joint batter.
3. Reduced rolling stock maintenance.
4. Smoother riding for trains.

(PATENTS PENDING)

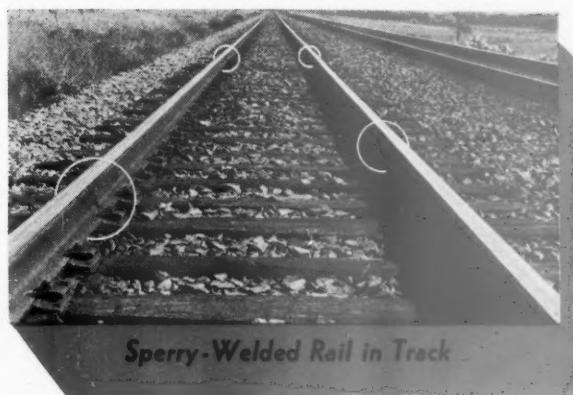
### SPERRY RAIL SERVICE

Brooklyn, N. Y.

Chicago, Ill.



Flash Weld in Service



Sperry-Welded Rail in Track

These little  
SPUDS  
went to market



IT seems very simple for a woman to drop in at her grocer's and say:

"I'll have a peck of potatoes — 25 pounds of flour — a pound of coffee — half a dozen oranges — a package of corn flakes — and how's your lettuce today?"

But did you ever wonder how all these things find their way to the corner grocer?

Instead of one woman, think of twenty-five million who do the buying for their families.

Instead of a peck of potatoes, think of three and a half million tons delivered to all the corner grocers in a year.

Think of 8,600,000 tons of wheat flour — 1,790,000 tons of oranges and grapefruit — 868,000 tons of cereal and you begin to see the amount of food moved by the railroads every year.

Coming back to the potatoes — the average

distance this humble food travels by rail, between the fields where it is raised and the counter where it is sold, is 741½ miles.

And the only thing which can make potato-raising profitable for many people is the fact that their potatoes can get to a market several hundred miles away.

If that transportation were not easy — potatoes would pile up unused in the country — while city people paid fancy prices for the few that could be hauled in.

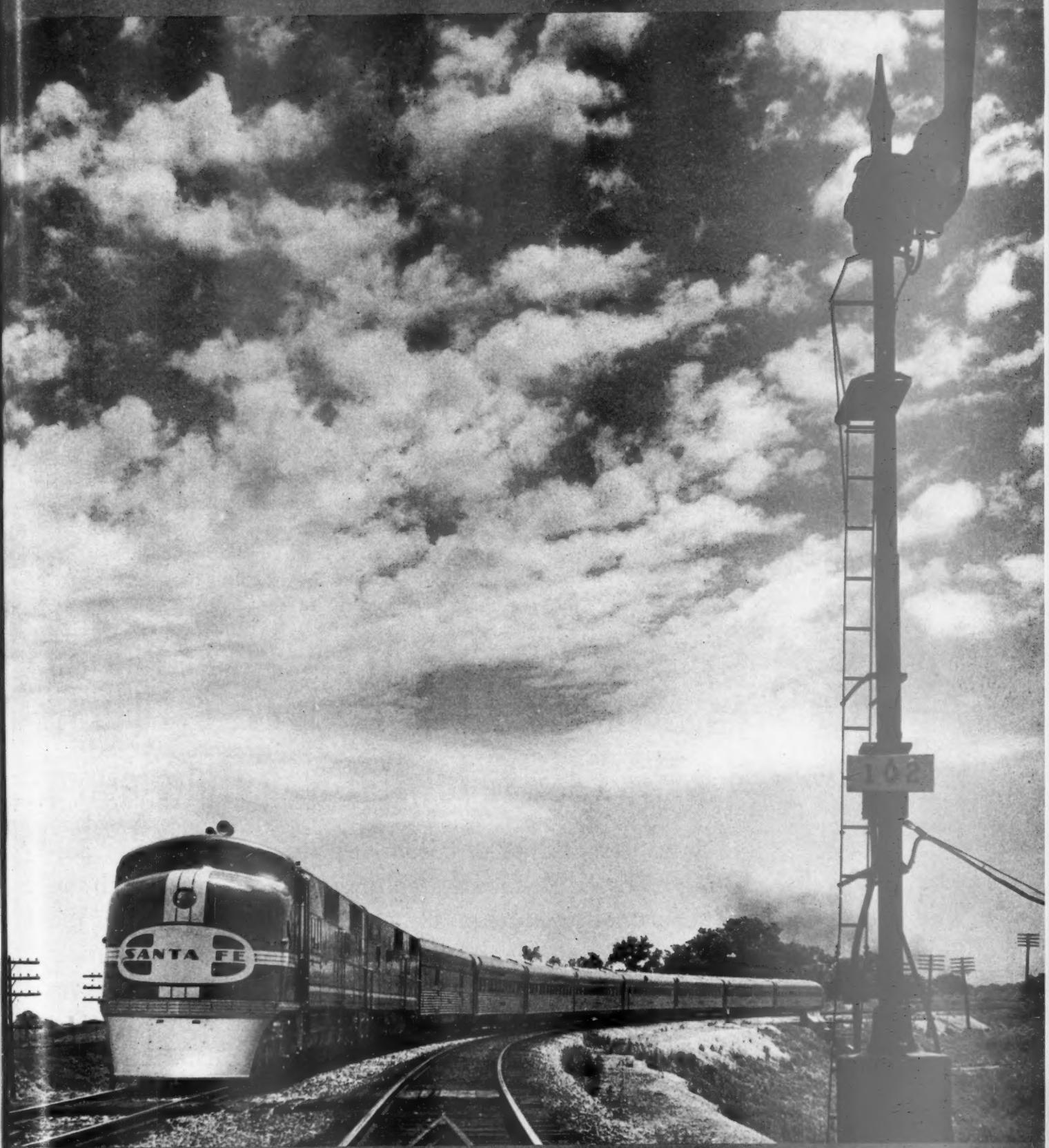
This in a simple way demonstrates the indispensable part the railroads play in helping the man who raises food to find a market — and the consumer to enjoy the pick of the nation's food at a reasonable price.

The rate at which this service is rendered is low — no other form of transportation could handle the tonnage at close to the price if in fact it could handle it at all.

ASSOCIATION OF  
**AMERICAN RAILROADS**  
WASHINGTON, D. C.



and...on the Santa Fe *Super-chief*



**A. S. F. ROLLER BEARING UNITS  
SIMPLEX Unit Cylinder CLASP BRAKES  
COIL AND ELLIPTIC SPRINGS  
by AMERICAN STEEL FOUNDRIES**

★ ★ ★ ★ *Dirt and Germs*  
**CAN'T LURK ON LEATHER**



In a jiffy, Eagle-Ottawa leather upholstery easily may be made "clean as a china plate." Its smooth surface provides no hiding place for dirt and germs... and a quick wipe with a dampened cloth instantly removes every trace of soil. That does away with passenger dissatisfaction over smudgy, dusty, clothes-spoiling seats. Railways alert to the appeal of new, streamlined efficiency and good looks, naturally turn to wider use of Eagle-Ottawa leather for upholstery. And superior cleanliness is just one of many reasons why leather is so highly desirable.

*A plus* FACTOR THAT PROVES  
 IT'S THE WISE THING TO USE  
**LEATHER** for Railway Upholstery

New, wide range of colors and finishes has been perfected by Eagle-Ottawa technicians. Combined with the well-known Eagle-Ottawa quality tannage, they provide opportunity for the finest flights of the car designer's fancy in color contrasts or harmonies. Add the ever-wearing durability, the advantage of light weight, and Eagle-Ottawa leather for railway upholstery assumes vitally new importance when writing specifications for new cars or for rehabilitation jobs.

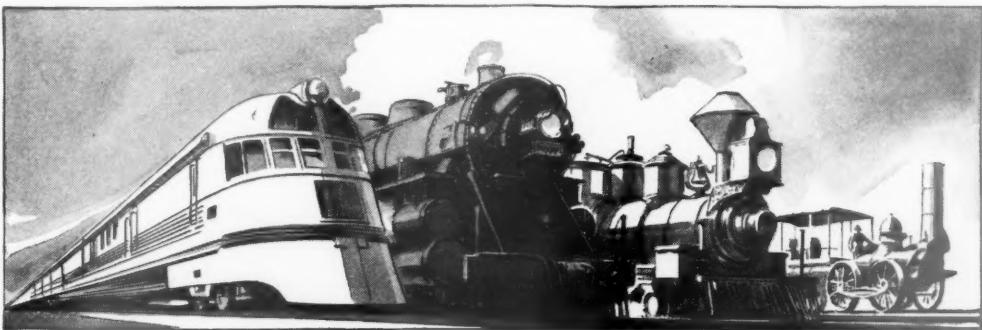
*If your Eagle-Ottawa leather swatch books are not entirely up-to-date, write for latest 1938 editions, now ready.*

**EAGLE-OTTAWA LEATHER COMPANY**

GRAND HAVEN, MICHIGAN



## BIG BUSINESS—NO. 8



## Common Carriers and Common Sense

THE INCREASE in freight rates just granted by the Interstate Commerce Commission is one sound step toward rehabilitation of the railroads.

While the public is entitled to railroad service at reasonable rates, investors in rail securities are likewise entitled to a reasonable return. At the same time, fair wages must be paid and taxes must be met.

Does the public receive reasonable rates? Amazing though it may seem, the cost of shipping a ton of freight one mile is less than 1 cent, as compared with 3.48 cents in France and 2.73 cents in Great Britain. Passenger rates are 14% less than in 1916 despite heavy increases in operating costs since that date.

Are railroad employees fairly treated? Hourly wage rates in 1937 were the highest in history—more than 167% over the 1916 rates, as compared with an increase of 30% in the cost of living.

How has Government fared? The railroad tax bill in 1937 was 326 million dollars, up 30% since 1933, and 107% greater than in 1916.

But what of the investors who have a 26 billion investment in railroads? Their return has been inadequate over a long period of years. For the past 10 years railroad earnings have averaged only 2.65% annually on all invested capital, and as most capital is bonded debt, such earnings were obviously not enough in many cases to meet interest charges.

Unquestioned solvency of the railroads is necessary to assure continuance of efficient service and employment at high wages. By assuring purchase of railroad equipment, it would also promote revival in many other industries. We do not undertake to indicate the terms of the solution, but common sense dictates that the earning power of railroads be restored as a matter of general welfare.

*As bankers for commercial and industrial enterprises, it is part of our responsibility to contribute something to a better understanding of the facts about private business.*

## BANK OF NEW YORK & TRUST COMPANY

48 Wall Street • New York

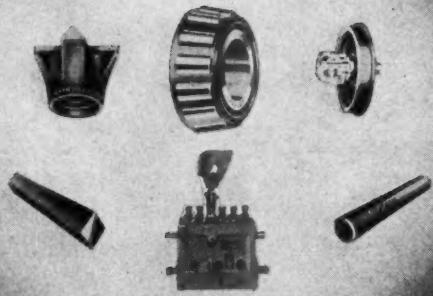
UPTOWN OFFICE: MADISON AVENUE AT 63RD STREET

New York's First Bank

Founded in 1784

# TIMKEN

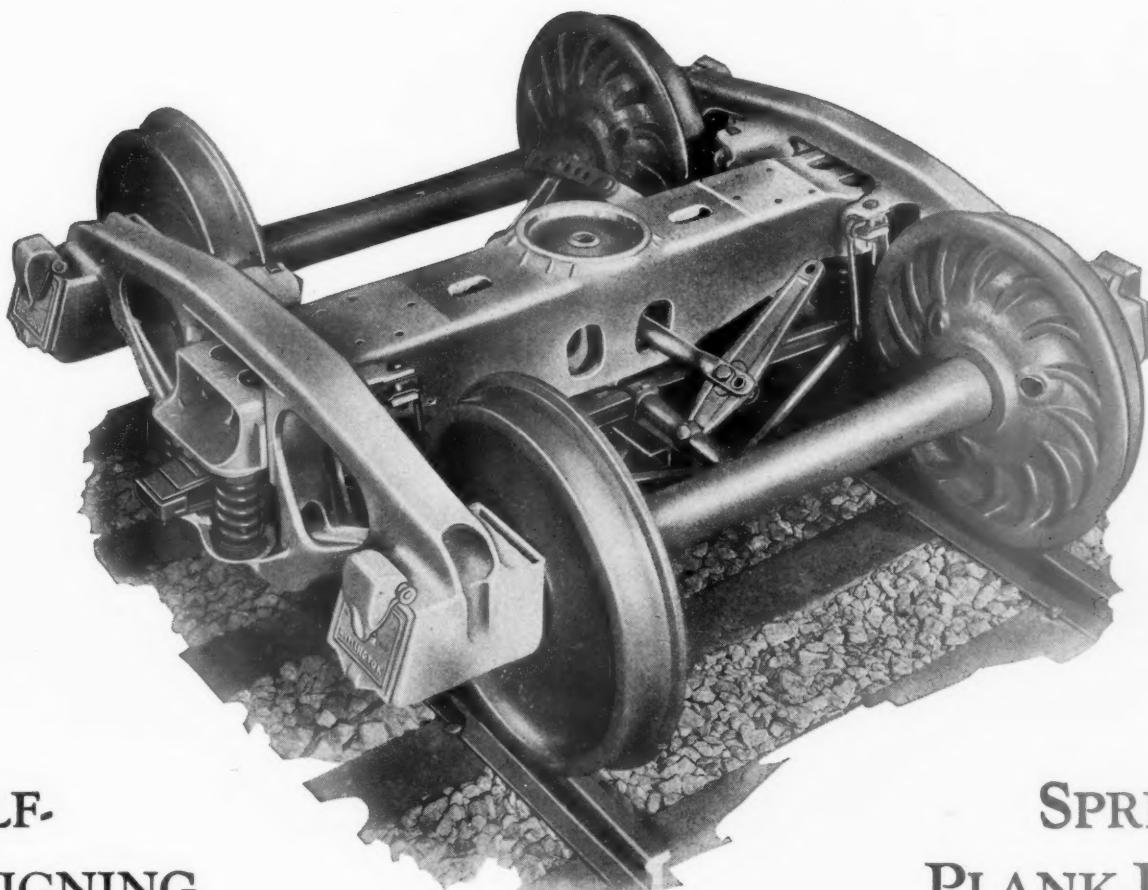
TRADE MARK REG. U. S. PAT. OFF.



A world-famous trade-mark identifying the products of one of the world's leading engineering-manufacturing institutions . . . TIMKEN Tapered Roller Bearings, TIMKEN Alloy Steels, TIMKEN Seamless Steel Tubing, TIMKEN Rock Bits and TIMKEN Fuel Injection Equipment for compression-ignition engines.

THE TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO

# GOULD



SELF-  
ALIGNING

SPRING-  
PLANK-LESS

## DOUBLE TRUSS TRUCKS

Adjust themselves to all track conditions ♦ ♦

Side frames of proven straight-line design ♦ ♦

Spring seat of ample area for any preferred  
balanced group ♦ ♦ All springs easily ap-  
plied or replaced without special tools ♦ ♦

No spring-planks to create safety hazard ♦

**GOULD COUPLER CORPORATION**

Works: DEPEW, N. Y.

New York

St. Louis

Chicago

Baltimore

Boston

San Francisco

Rochester

## FOR AN EXECUTIVE'S NOTEBOOK

### SPECIALIZATION

A Jack-of-all-trades is master of none. It is specialization that has perfected methods and machines for greater efficiency in every line of business. Welding Contractors, specialists in their field, are appreciative of the confidence placed in them by Railroad maintenance officials. A continuation of this patronage will bring still further improvement and economies. Specialists can pay large dividends to those who use their services.

### SATISFACTION

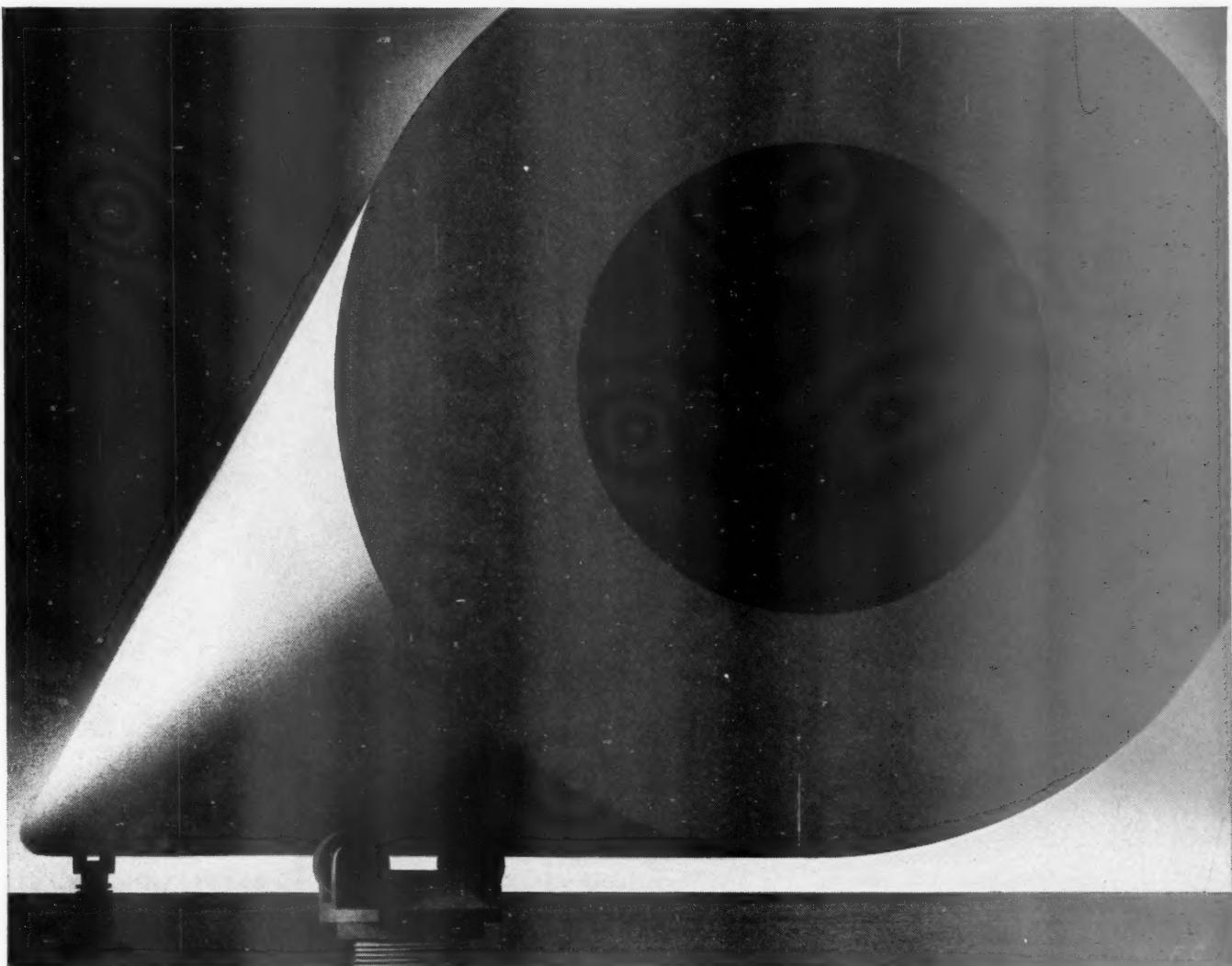
When the Railroad performs work with its own forces there is no buyer and seller relationship—no guarantee is necessary as to ultimate cost and quality. When a contractor performs a job, he must be sure it is satisfactory, otherwise he has to make good at his own expense . . . and be faced with the possibility of having a dissatisfied customer.

### SERVICE

Railroads have been forced to adopt many maintenance duties as a regular routine in their organization, because they could not depend on outside sources to give them service as needed. Certainly this is not the case with the Welding Contractor who offers services and facilities to satisfy the most exacting specifications.

The Welding Contractor offers quality workmanship  
at lowest cost in reconditioning steel bridges, frogs  
and crossings under traffic.

Number two in a series of advertisements of the  
Morrison Railway Supply Corporation, Buffalo,  
N. Y. in the interests of the Welding Contractor.



## HUGE—YET UNIFORM IN PHYSICAL PROPERTIES

NECESSITY hastens many a discovery. When deep drilling in the oil industry created the need of extra-heavy, extra-durable drill collars, their service requirements and economical construction presented some new machine-shop problems. Among them was the finding of a steel which could be heat treated in long, massive chunks (sometimes 8 tons and 40 to 50 feet long) to produce uniform high physical properties and yet be readily machinable.

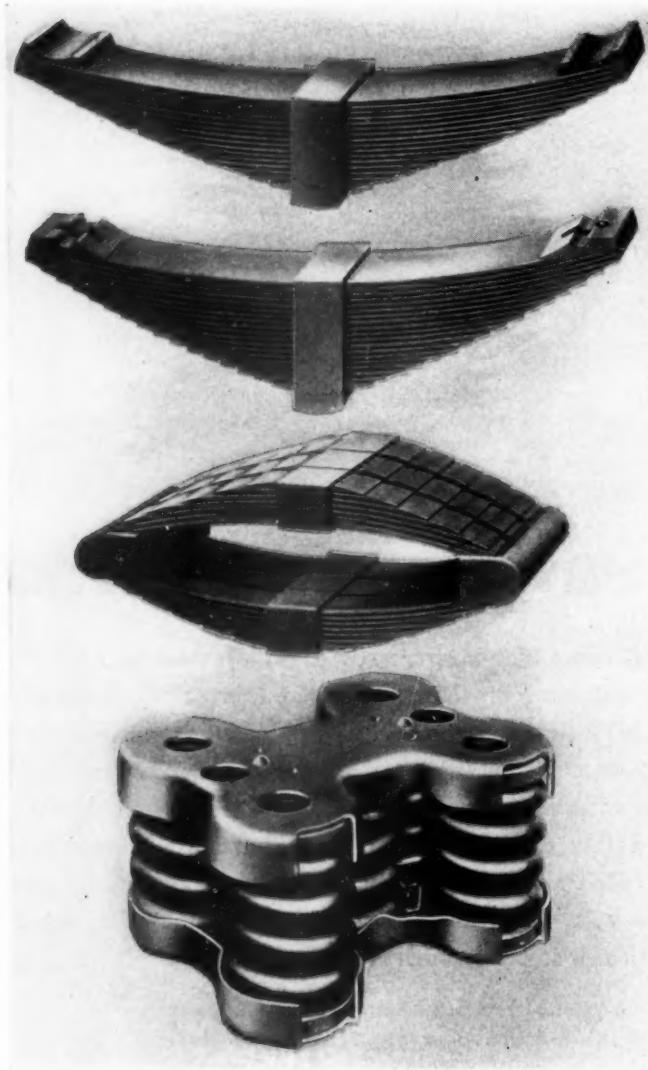
Chrome-Molybdenum (SAE 4140) steel proved the solution. It is widely chosen for this purpose because: (a) It develops the requisite physical properties. (b) It responds well to heat treatment—hardening uniformly through the large sections involved. (c) Its machinability at the relatively high hardness is excellent. (d) It is not susceptible to temper brittleness. And—with all its unusual fabricating and service qualities, it is comparatively inexpensive.

*Have you heavy-forging problems involving peculiar combinations of service and fabricating requirements? There's a Moly steel, most likely, that's exactly suitable. Investigate. Our free book, "Molybdenum in Steel," will prove helpful. Climax Molybdenum Company, 500 Fifth Avenue, New York City.*

PRODUCERS OF FERRO-MOLYBDENUM, CALCIUM MOLYBDATE AND MOLYBDENUM TRIOXIDE

**Climax Mo-lyb-den-um Company**

# QUALITY SPRINGS



To Meet the Most Rigid Requirements of Present Day Operation is the Keenote of "Railway" Engineering

TIME and time again modern high speed motive power and passenger cars have presented many new and different spring problems, often necessitating comprehensive tests and research.

The thoroughly practical manner in which "Railway" Spring engineers have solved these unusual spring problems demonstrates without question the definite need for this highly specialized organization and emphasizes the real value of "Railway's" long experience and vast knowledge of railway operating conditions.

It will pay you to specify "Railway" Springs and take full advantage of the economies assured by their use on all locomotives and cars.

AMERICAN LOCOMOTIVE COMPANY  
**RAILWAY STEEL SPRING DIVISION**  
 30 CHURCH STREET • NEW YORK • N.Y.



## NATIONAL TYPE B SPRING-PLANKLESS TRUCK



YEARS of research and development have produced a simplified design of freight car truck that fully meets present day operating conditions—the National Type B Spring-Plankless Truck.

Originated by a company that has made thousands of car trucks for the nation's railroads, this National Truck embodies all the essentials necessary to provide the most dependable service at minimum cost.

The pioneer of modern spring-plankless trucks, National Type B Truck offers the construction that allows quickest wheel changes to be made, oversolid spring protection and complete flexibility, all superior features that produce exceptional results in reducing cost of freight car operation.

### NATIONAL MALLEABLE AND STEEL CASTINGS CO.

General Offices: CLEVELAND, OHIO

Sales Offices: New York, Philadelphia, Chicago, St. Louis, San Francisco

Works: Cleveland, Chicago, Indianapolis, Sharon, Pa., Melrose Park, Ill.

Canadian Representatives: Railway and Power Engineering Corporation, Ltd., Toronto and Montreal

# NOW! A REVOLUTIONARY NEW MONEY SAVING TRUCK TIRE



- ★ It does NOT get dangerously hot
- ★ It licks load and speed problems
- ★ It practically eliminates sidewall breaks
- ★ It carries no premium price

It's startling but it's true! Goodrich has a new truck tire that positively does not run dangerously hot—a tire built to stand up under peak loads and high speeds—a tire that actually runs two and three times longer on "tire-killer" hauls.

The secret of this amazing performance lies in an utterly different type of construction. Goodrich engineers discarded old ways of doing things. Developed an entirely new kind of cord. Hi-Flex Cord. A compact cord, smaller in diameter, yet containing as much cotton as the thick cord now universally used.

Ordinary cord stretches under constant flexing. Grows longer, takes a permanent set. That's what causes tires to "grow," to become flabby.

#### NEW LONG-LIFE CORD

Hi-Flex Cord is elastic. It gives under flexing, then returns to its original length. It retains its "life" and strength through thousands of miles of pounding, battering service on the road.

This compact Hi-Flex Cord makes it possible for Goodrich to build a tire of super-strength, yet a tire that is not too thick, heavy, or bulky. A tire that runs COOLER.

#### EXCLUSIVE WITH GOODRICH

Only Goodrich uses this Hi-Flex Cord. Only Goodrich can give you the combination of these three exclusive features which, working together, make the new Goodrich truck tire today's best buy:

- 1 PLYFLEX—which distributes stresses throughout the tire and prevents local weakness.
- 2 PLY-LOCK—which protects the short plies from tearing loose above the beads.
- 3 HI-FLEX CORD—full-floated in live rubber—cord that retains its strength and protects the tire against getting dangerously hot.

These new Silvertowns have been used on tire-killing jobs where no tires would stand up. Tested on the toughest cross-country bus runs. What did they find? That they ran *2 and 3 times longer than the best tires used before!*

#### NO EXTRA COST

Now you can get these tires for *your* trucks and buses. If you have a tough job, your tire bill will dive downward. On any job you'll save plenty. And there is no premium price to pay.

Every Goodrich dealer now has these extra quality Silvertowns at no extra cost. Look under Goodrich in the phone book. Make that money-saving call today.

**Goodrich** *Triple Protected* **Silvertowns**

SPECIFY THESE NEW SILVERTOWN TIRES FOR TRUCKS AND BUSES



To provide utmost comfort, Karpen Seats in the Women's and Children's car recline to permit completely relaxed riding position.

The Karpen-equipped Women's and Children's car on "El Capitan" is smartly modern in appearance.

# Karpen Comfort for WOMEN AND CHILDREN FIRST aboard "EL CAPITAN"

In the "El Capitan" car reserved exclusively for women and children, Santa Fe naturally sought for the utmost in comfort. Karpen Transportation Seating filled the bill . . . with the important plus factors of light weight, extreme durability, and modern, effective design. Wherever low cost per seat mile is a requirement—and that's everywhere in modern railroading—Karpen Transportation Seating deserves first consideration.

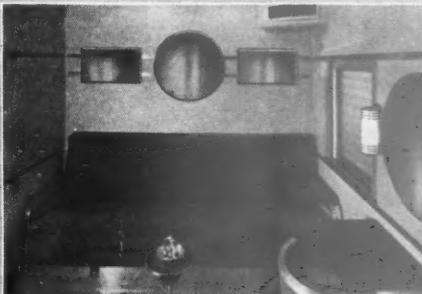
**S. KARPEN & BROS.**

*Transportation Seating Division*

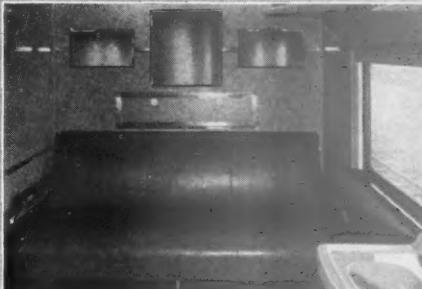
636 Cermak Road

Chicago, Illinois

NEW YORK SALES OFFICE: ONE PARK AVENUE



The dainty, boudoir-like appearance of the Women's Lounge is enhanced by Karpen furniture.



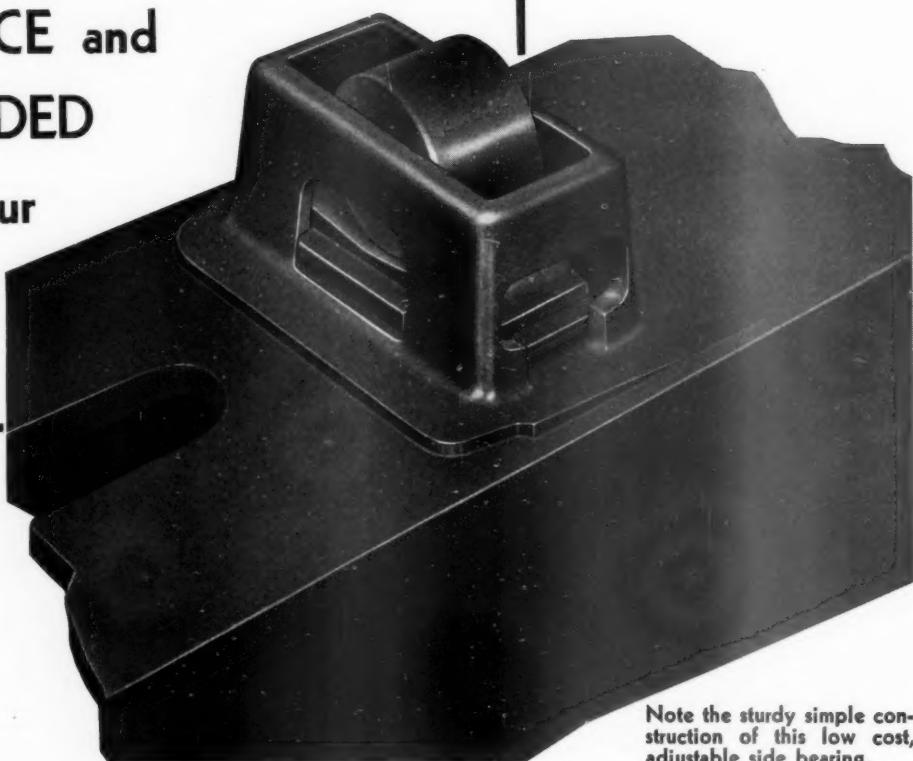
Normally the Men's Lounge, this attractive room furnished by Karpen is used aboard "El Capitan" as the courier-nurse's headquarters.

*It's the Seating  
that Counts*

# KARPEN

**KARPEN**  
Guaranteed  
FURNITURE

**The LOWEST PRICED  
Adjustable SIDE BEARING  
OBTAINABLE—*Insures LOWER  
MAINTENANCE and  
PROVIDES ADDED  
SAFETY for Your  
Freight  
Equipment***



*Patented February 15, 1938*

Note the sturdy simple construction of this low cost, adjustable side bearing.

# BARBER

## "MONOCAST" SIDE BEARINGS

AT NO EXTRA COST the housing of this rugged, adjustable side bearing is cast integrally with the bolster. Rivets are entirely eliminated.

Upward and downward adjustments are easily made with only slight jacking up of car and without use of cutting tools.

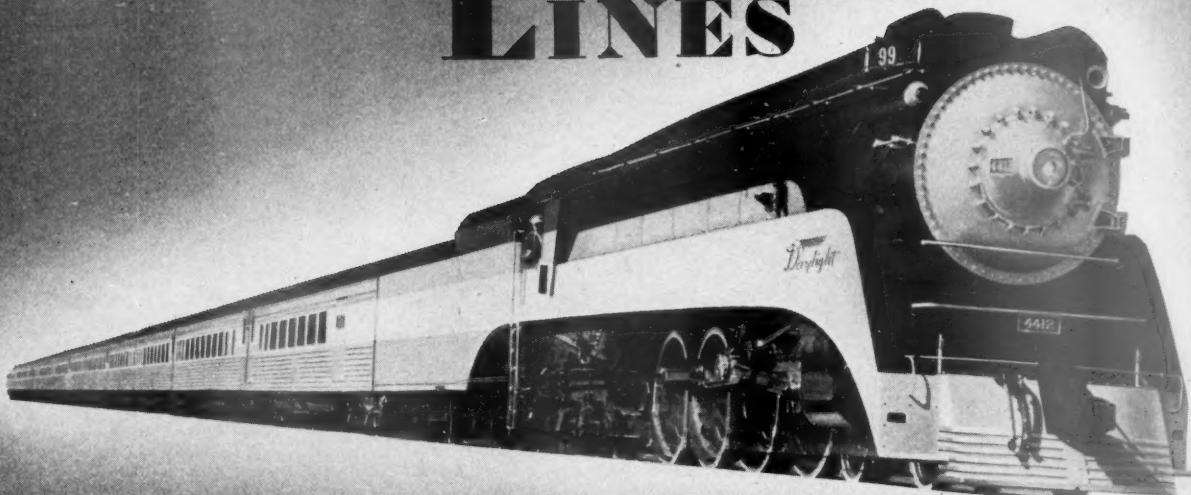
The drop forged steel bearing plate and roller are made of high carbon steel, heat treated to assure *long, satisfactory life*.

Being easily adjusted, proper clearance can be maintained, thus reducing excessive body roll. Train resistance is also reduced, making higher speeds safer.

*Specify this time-proven Barber Device on your next bolster order*

**STANDARD CAR TRUCK COMPANY**  
332 SOUTH MICHIGAN AVENUE CHICAGO, ILLINOIS

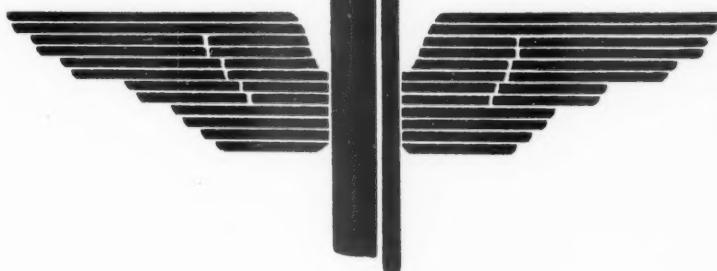
# SOUTHERN PACIFIC LINES



69

NEW STREAMLINED  
LIGHTWEIGHT CARS  
ALL EQUIPPED WITH

FREEDOM WHEELS



STANDARD STEEL  
WORKS COMPANY

SUBSIDIARY OF THE BALDWIN LOCOMOTIVE WORKS

GENERAL OFFICES & WORKS: BURNHAM, PA.

CHICAGO  
NEW YORK

ST. LOUIS  
SAN FRANCISCO

PORTLAND  
PHILADELPHIA



*Sunbeam*



*Challenger*



CALIFORNIAN



*Daylight*



Two International I-12 Industrial Tractors are used in the Louisville, Ky., shops of the Louisville & Nashville railroad to keep materials and parts moving between departments and around the yards.

## Flexibility in Handling Materials

The solution to many materials-handling problems in the shop, and freight and baggage handling in yard and station, is readily found in the International I-12 Industrial Tractor. The simple application of the freight-train principle of transportation to materials-handling is shown in these pictures. The compact, versatile International I-12 brings unusual economy to this work, using only a gallon or less of gasoline an hour on the job.

The International Industrial Power line also includes larger wheel and crawler tractors (gasoline and Diesel) for heavier work; and power units (gasoline and Diesel) up to 110 max. h. p. for stationary power work. The nearby International industrial power dealer or our Company-owned branch will give you complete information.

**INTERNATIONAL HARVESTER COMPANY**  
(incorporated)  
180 North Michigan Avenue Chicago, Illinois

*Below: Under the hood of these two tractors is the sturdy, economical International P-12 Power Unit—the same engine used in the Model I-12 Tractor shown above. These tractors are also used at Louisville by the Louisville & Nashville road.*



# INTERNATIONAL Industrial Power

# MAGNUS METAL CORPORATION

**Journal Bearings**

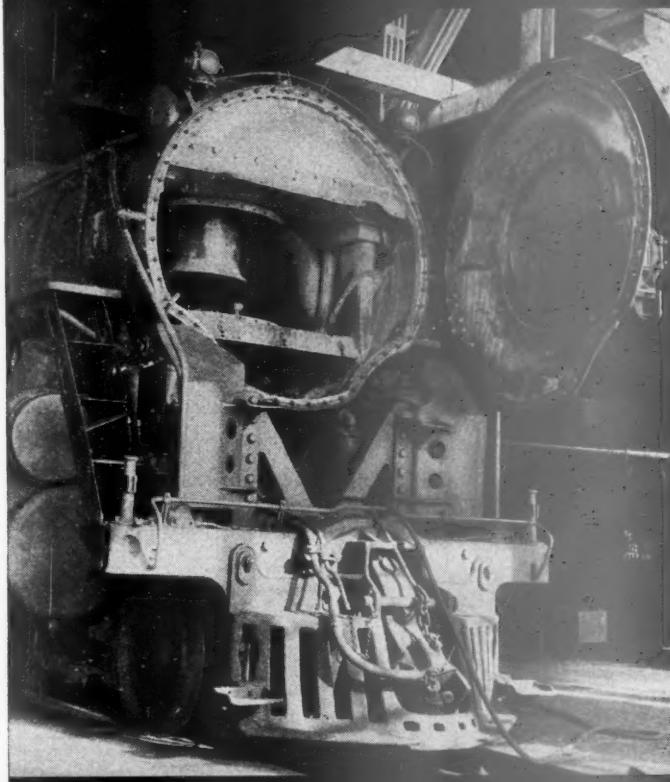
**AND**

**Bronze Engine Castings**

**New York**

**Chicago**

# FACE-LIFTING



# for LOCOMOTIVES

## PANTASOTE and AGASOTE

**Are the Outstanding Favorites  
on the New**

## STREAMLINED TRAINS

FOR more than 40 years Agasote and Pantasote have demonstrated their utility, durability and economy by rendering eminently satisfactory service in passenger equipment. It was but logical, therefore, that these two superior materials should have been selected for the 1300 new Eighth Avenue subway cars and used on practically all the new streamlined trains.

### THE PANTASOTE CO., Inc.

250 Park Avenue, New York City

683 Atlantic Ave.  
BOSTON  
751 Monadnock Bldg.  
SAN FRANCISCO

3611 Clinton Drive  
HOUSTON  
Peoples Gas Bldg.  
CHICAGO

Selling Agents for

THE PANTASOTE LEATHER CO.  
PASSAIC, N. J.

and

THE AGASOTE MILLBOARD CO.  
TRENTON, N. J.  
(In the Railroad & Marine Field)



Efficient, well-equipped shops are vitally important to all railroads today.

Graybar does *its* part in maintaining shop efficiency ... by providing a complete, convenient source of *reliable* electrical supplies. Any needed electrical products—wire, cable, tape, tools, conduit, motors and control, fuses, lamps and lighting fixtures—are quickly available from Graybar.

Graybar brings to its task a long experience in meeting specialized railroad requirements. It brings, too, the responsibility of a great national distributor, proud of its 69 year reputation for quality.



# GraybaR

OFFICES IN 85 PRINCIPAL CITIES. EXECUTIVE OFFICES: GRAYBAR BLDG., N.Y.



# FEED WATER HEATING by Coffin—

The Coffin Feed Water Heater System provides what the railroads want and need. Increased revenue from freight hauled.

*See previous issue for additional facts, or write*

## Proved Best by Test

The J. S. Coffin, Jr., Company  
Englewood, New Jersey



TRADE MARK REGISTERED  
U. S. PAT. OFF. CAN. PAT. OFF.

# KERITE

Out of the experienced past, into the exacting present, KERITE wires and cables, through three-quarters of a century of successful service, continue as the standard by which engineering judgment measures insulating value.



THE KERITE INSULATED WIRES & CABLES COMPANY INC.  
NEW YORK CHICAGO SAN FRANCISCO

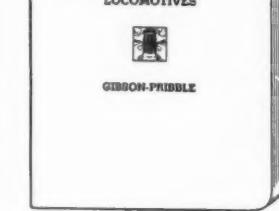
## United States Regulations FOR LOCOMOTIVES

### UNITED STATES REGULATIONS

FOR STEAM  
AND OTHER THAN STEAM  
LOCOMOTIVES



GIBSON-PRIBBLE



IN One Volume is included all current Rulings, Interpretations, Tables and Forms of the Bureau of Locomotive Inspection, together with Safety Appliance Standards for Locomotives, as prescribed by the Bureau of Safety.

In this new pocket-sized book is combined the material of four government booklets on the laws and regulations covering railway motive power. Superfluous citations and obsolete material is left out so that it boils down to 219 pages, including a complete cross-index and 23 line drawings.

### CONTENTS

Locomotive Inspection Law—Steam Locomotive, with Interpretations and Rulings thereto, quoted directly after each Rule to which applicable—Locomotives Other Than Steam—Complete Set of Sample Report Forms—Line Drawings showing limits of wear on wheels, gauges for measuring flat spots, and couplet gauges—Safety Appliance Standards—Complete Index.

219 pages, 23 illustrations, 4 1/8 x 6 5/8, flexible cover, \$1.25. Special prices on quantities.

*Money Back if Not Satisfactory*

Book Service Department

**Simmons-Boardman Publishing Corp.**  
30 CHURCH STREET NEW YORK, N. Y.

## GET TOGETHER DEPARTMENT

### EDUCATIONAL

#### THE RAILWAY EDUCATIONAL BUREAU

offers a new service to  
Railroad Employees

#### TRANSPORTATION SALES TRAINING

*Write for full particulars*

Omaha, Nebraska

### POSITION WANTED

Structural Engineer—Position wanted with good salary. 1935-1937 chief licensed engineer in charge of design of major bridges New York Zone, Pennsylvania Railroad. Address Box 987, RAILWAY AGE, 30 Church St., New York City.

**IRON & STEEL  
PRODUCTS, Inc.**  
Chicago (Hegewisch Sta.), Ill.  
Phone: South Chicago 9430

#### *"Anything containing IRON or STEEL"*

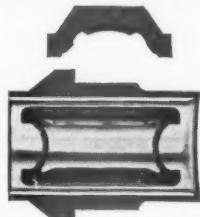
Car Repair Parts; Freight Cars; Locomotives; Cranes & Shovels; Earth Handling Equipment; Re-laying Rails; Merchant Iron & Steel; Bldgs. & Structures; Machy. & Equipment; Generators, Boilers, Etc.; Scrap Iron & Steel

We Strive To Merit All Inquiries  
Buyers \* Sellers \* Traders

It will  
pay you  
to take  
advantage  
of space  
in this  
section.

## SECURITY BOND OIL CONTROL JOURNAL BEARINGS

REDUCE  
HOT  
BOXES



APPROVED BY  
A. A. R. FOR  
INTERCHANGE

NATIONAL BEARING METALS CORP.  
ST. LOUIS, MO.

New York, N. Y.  
Jersey City, N. J.

Pittsburgh, Pa.  
Meadville, Pa.  
Clearing, Illinois

Portsmouth, Va.  
St. Paul, Minn.

## VAPOR Products

STEAM COUPLERS  
ARA Standard

FLEXIBLE CONDUITS  
In place of Steam Hose



VAPOR SYSTEM  
Thermostatic Control

CONTROLS for Air  
Conditioning

VAPOR CAR HEATING CO., Inc.  
RAILWAY EXCHANGE, CHICAGO

## EDGEWATER STEEL COMPANY PITTSBURGH, PA.

Details of our products appeared in the following issues of *Railway Age* during 1936, 1937:  
1936—Jan. 4—Feb. 1, 15—March 7, 21—April 4, 18—May 2—  
June 6, 20, 27—July 4, 18—Sept. 5—Oct. 3—Nov. 7—  
Dec. 5.  
1937—Jan. 2—Feb. 6—March 6—April 3—May 1—June 5, 15, 17,  
18, 21, 22, 23—July 3—Aug. 7—Sept. 4, 18—Nov. 6—Dec. 4.  
1938—Jan. 1—Feb. 5, 26—March 5.

## Steam and Electric Specialties for Passenger Car Heating

GOLD CAR HEATING & LIGHTING CO.  
NEW YORK

## HYMAN-MICHAELS COMPANY

Scrap Iron  
Track—RAILROAD DISMANTLING—Car  
Our complete facilities available throughout the country  
122 South Michigan Ave., Chicago, Illinois  
New York—St. Louis—San Francisco—Seattle—Los Angeles  
Portland, Oregon  
SERVICE      QUALITY      DEPENDABILITY

## THE "FAIR" RAIL ANTI-CREEPER

**THE P&M CO.**

CHICAGO  
Montreal      London

Paris

NEW YORK  
Calcutta      Sydney

## OKONITE PRODUCTS

### Okonite Rubber Insulated Wires and Cables

Any Size and Number of Conductors. Any Voltage.  
Any Service, Braided, Lead Covered, Steel Braided.  
Steel Taped, Steel Wire Armored.

Railway Signal Wire • Train Control Wire • Car Wire  
Locomotive Head Light Wire • Ignition Wire  
Okocord • Oil Proof Okocord • Welding Cable  
Telephone and Telegraph Wires • Okoloom  
Plough Leads • Pot Heads • Okonite Cement  
Okobestos • Okojute • Candee Weatherproof Wire  
Okonite Rubber Tape • Manson Friction Tape

### Okonite Varnished Cambric Wires and Cables

Any Size and Number of Conductors. Any Voltage.  
Any Service, Braided, Lead Covered, Steel Braided.  
Steel Taped, Steel Wire Armored.

### OKONITE-CALLENDER PRODUCTS

Impregnated Paper Cables • Super-Tension Cables  
Oil-filled Paper-Insulated Cables • Splicing Materials  
Type H • Oilostatic

### THE OKONITE COMPANY

Founded 1878



### HAZARD INSULATED WIRE WORKS DIVISION

### THE OKONITE-CALLENDER CABLE COMPANY, INC.

EXECUTIVE OFFICE: PASSAIC, N. J.

New York   Boston   Seattle   Buffalo   Chicago   Detroit   Philadelphia  
Atlanta   Los Angeles   Pittsburgh   Washington   Dallas   San Francisco  
Factories: Passaic, N. J.   Wilkes-Barre, Pa.   Paterson, N. J.

## THE BUCKEYE STEEL CASTINGS CO. COLUMBUS, OHIO

MANUFACTURER of Side Frames and  
Bolsters for 4-Wheel and 6-Wheel Freight  
Cars and Locomotive Tenders, A. A. R.  
Couples, Yokes and Car Castings.



### HENNESSY LUBRICATOR CO.

75 West St., N. Y. C.

1205 Syndicate Trust Bldg., St. Louis

Detailed information about Hennessy Mechanical Journal Lubricators  
for Locomotives appeared in the following issues:

*Railway Age* June 16, 17, 18, 21, 22, 23 (Dailies), Dec. 25, 1937, Jan.  
1, March 12, 1938.

*Railway Mechanical Engineer* Jan to Dec. 1937.

Mechanical Lubricators For All Journals Of Railway Equipment

LOCOMOTIVE CRANES  
CRAWLER CRANES  
SHOVELS

THE OHIO LOCOMOTIVE CRANE CO.  
COLUMBUS, OHIO

## Pittsburgh Spring & Steel Co.

1417 Farmers Bank Building Pittsburgh, Pa.

Makers of  
Elliptic and Spiral SPRINGS of Every  
Description

Carbon, Vanadium, Silico-Manganese Steels.  
Licensed manufacturers under patents for

"Coil-Elliptic" groupings.

Washington, D. C.      New York  
624 Union Trust Bldg.      3723 Grand Central Terminal  
Chicago      1401 Fisher Bldg.

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Everything—special alloys, staybolt iron, shafting, sheets, structural, etc.—in stock  
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MAR 28 1938

MARCH 26, 1938

# Railway Age

Founded in 1856

DISTINCTIVE - COLORFUL  
RESTFUL INTERIORS

...created by  
**PULLMAN - STANDARD**

The Pullman cars for the new Santa Fe trains, built by Pullman-Standard, incorporate harmonious and beautiful interiors that have been developed to the last detail by the color and design service of this car building organization.

Pullman-Standard offers this service to buyers of its equipment... a service that creates the modern and distinctive interior and exterior appear-



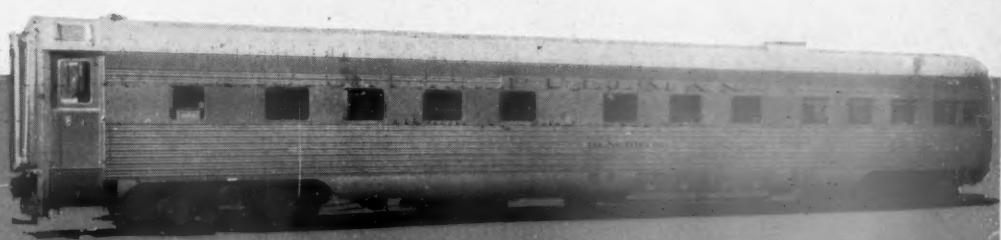
ances so necessary in selling passenger transportation to the public today.

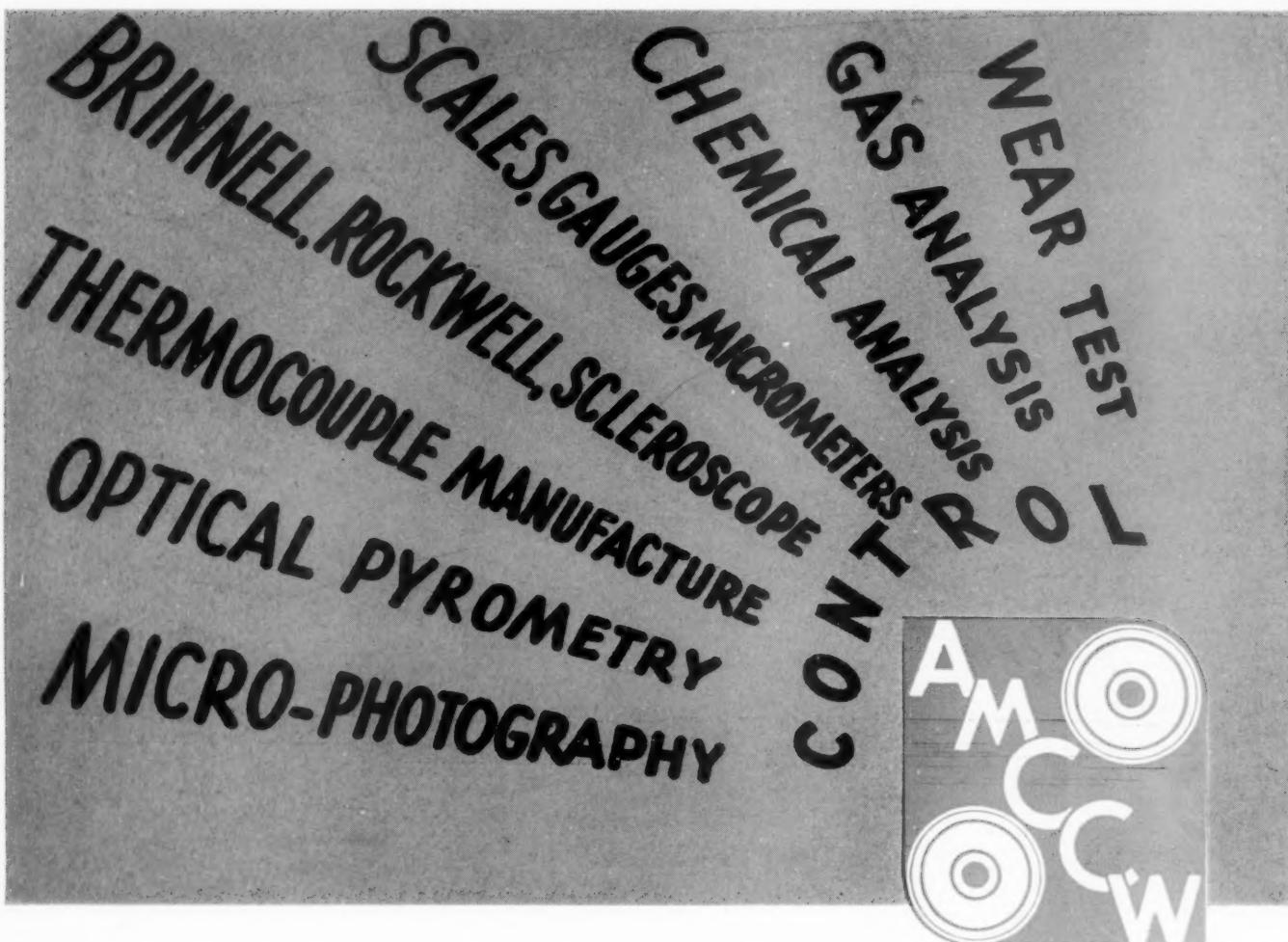
## PULLMAN - STANDARD CAR MANUFACTURING CO.

CHICAGO • PITTSBURGH • WASHINGTON, D. C. • NEW ORLEANS • CLEVELAND • HOUSTON • BALTIMORE • BIRMINGHAM • NEW YORK • WORCESTER, MASS.

San Francisco . . . Sales Representative . . . Latham McMullin, Russ Building

Pullman-Standard has pioneered in the development of light weight construction. With equal safety no modern passenger car equipment has been built at weights lower than those achieved by Pullman-Standard.





## Maintaining Standards for the Industry

New standards of plant performance for chilled wheel manufacture have required closer control of key operations. The development of better instrumental control has been an important feature of our research program. Notable among the accomplishments of this department are—

- ① The calibration, repair and standardization of pyrometric equipment for the industry.
- ② The manufacture of thermo-couples for the industry, especially designed for our operating requirements.
- ③ Manufacture of gages and other test equipment for our Inspection Department.

The improved foundry control, possible by means of these standard instruments, has materially aided in maintaining that degree of improved quality and uniformity which chilled car wheels now possess.

*J. H. Hardin*  
PRESIDENT

### ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS

445 N. Sacramento Blvd., Chicago, Illinois.

230 Park Avenue, New York, N. Y.

# Double-Deckers increase Train Capacity

## ALCOA ALUMINUM REDUCES TRAIN WEIGHT



DOUBLE-DECK COACHES have been built for the Long Island Railroad as a means of increasing passenger space without a corresponding increase in car length.

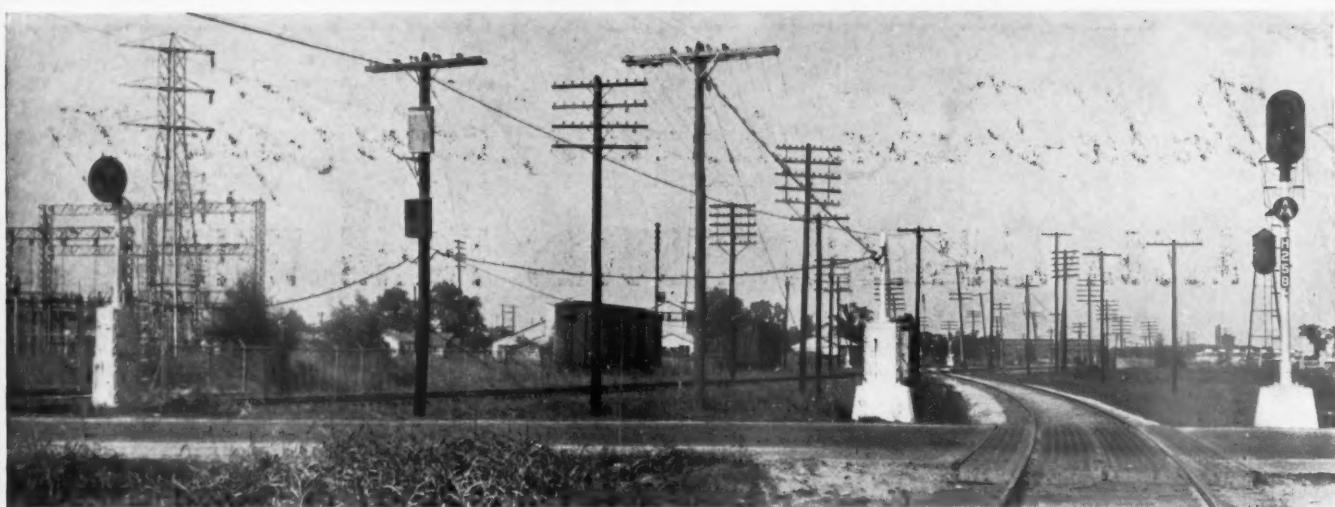
The use of Aluminum for the body of each car accomplished great savings. For example, *weight per seated passenger* of the motorcar is

60% of the old car, almost doubling the pay load, in trains of equal weight. How else can a railroad effect savings of such size?

Alloys of Alcoa Aluminum offer the economic solution to many weight-saving and corrosion problems. Available in every required form, they can be fabricated by all metal-working methods. Our engineers will be pleased to advise you on the selection of suitable alloys. Aluminum Company of America, 2178 Gulf Bldg., Pittsburgh, Pennsylvania.



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The salient feature of modern interlocking is that distance between the controlled area and the point of control is no longer a restricting factor. One, two, three, or innumerable switches and signals at various locations can now be operated from one point or control station.

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UNION SWITCH & SIGNAL COMPANY

Swissvale, Pennsylvania

GENERAL RAILWAY SIGNAL COMPANY

Rochester, N. Y.

201

### HISTORY IN THE MAKING

While 46 interlocking plants were completed in 1937, the trend is definitely to replacement of old plants and the consolidation of two or more plants into one control system.

